

The
Business Man's
Encyclopedia

2

Business Methods.
Tables and Data

THE BUSINESS MAN'S ENCYCLOPEDIA

VOLUME II

THE BUSINESS MAN'S BRAIN
PARTNERS—INSURANCE—POSTAL LAWS—
BUSINESS DATA—DICTIONARY OF
BUSINESS TERMS

THIRTEENTH REVISED EDITION

THE BUSINESS PRESS
CHICAGO

PRINTED IN THE UNITED STATES OF AMERICA

CONTENTS

VOLUME II

BOOK III—BUSINESS DATA

	PAGE
ARE THERE RULES FOR WRITING BUSINESS LETTERS?	133
HOW TO ORGANIZE A SAVINGS AND LOAN ASSOCIATION	143
A MODEL PROFIT-SHARING PLAN	149
HANDLING OFFICE CALLERS	154
HOW TO DISCOVER WHO MAKES THE MISTAKES.	158
THE HAND OF THE LAW IN THE POST OFFICE	160
KINKS IN THE BILL OF LADING	167
TRADE-MARK LAWS	174
TRADE NAME SOUTH OF PANAMA	180
ARE YOU BORROWING AT THE RIGHT PRICE?	186

BOOK IV—BUSINESS TABLES

FIELD INVESTIGATION FOR SALES CAMPAIGN	189
ESSENTIALS OF MARKET CLASSIFICATION	192
HOLDING RETAIL TRADE	195
SOURCES OF BUILDING MAILING LIST	196
AVOIDING LOSS IN RETAIL BANKRUPTCY	197
CONDENSING BUSINESS LETTERS	198
HOW TO CHECK BILLS	201
TABLE OF WEIGHTS, MEASURES, ETC.	202
STANDARD TIME	206
FINDING THE TIME BETWEEN DATES	207
RULES FOR ESTIMATING BODY TYPE	209
PROOF-READING	209
MARKS USED IN PROOF-READING	213
GEOGRAPHICAL TABLES	214

DISTANCE FROM NEW YORK AND TIME IT TAKES LET- TERS TO REACH DIFFERENT PARTS OF THE WORLD . .	214
POSTAL DISTANCES BETWEEN NEW YORK AND OTHER CITIES	215
TABLES OF INTEREST, DISCOUNT, ETC.	217
ESTIMATING PROFITS	224
TABLE OF ALIQUOT PARTS OF ONE HUNDRED	225
COINS OF FOREIGN COUNTRIES	226
COINS OF THE UNITED STATES	227
RAPID CALCULATION TABLES	228
METRIC SYSTEM	230
MARKING GOODS	231
FORMULA FOR FIGURING COSTS	233
A BANKER'S TABLE OF FAMILY EXPENDITURES . . .	235

BOOK V—BUSINESS DICTIONARY

DEFINITIONS OF TERMS	237
ABBREVIATIONS OF SIGNS	251

BOOK III

BUSINESS DATA

ARE THERE RULES FOR WRITING A SALES LETTER?

A study—recently completed—of tabulated returns from nearly forty million pieces of sales literature (letters, circulars, folders and booklets) seem to offer convincing proof that there are certain fundamental principles which successful sales literature follows. These principles have been analyzed and reduced to rules. The rules themselves are stated in this article.

The Basic Rules of Letter Writing.—The fact that these rules have been worked out from a careful study of nearly forty million pieces of sales literature—both successful and unsuccessful—is in itself proof that these rules are not mere flash-in-the-pan statements of supposed principles. But a still further test has been applied—a psychological and highly scientific test. The test proves that the rules are basic, because each one of them, independent of the others, may be deduced from one central psychological process—the psycho-physical reaction, as it is called. The full meaning of these terms, and the psychological problems involved, will be clearly explained as soon as the rules themselves are given.

First of all, bear in mind that the study of the forty million pieces shows that sales literature, when it is written in accordance with these rules, is invariably more effective than when it ignores them or fails to take them properly into account. The same is true of collec-

tion and adjustment letters, and very largely of advertising in general, for after all these are only specialized forms of sales literature.

Expert Sales Literature Not Always Successful.—It does not follow, however, that sales literature written even with expert application of these principles of correspondence will invariably be successful. The most that can be said for such literature is that it has a good fighting chance. Under normal conditions and to well-chosen trade prospects, it will succeed. Under adverse conditions, such as the outbreak of war or any more or less transient social excitement, failure may result.

Furthermore, a letter or advertisement may succeed even though it contradicts one or more of these principles. But this fact does not shake the principles themselves. Such a letter would be more successful if its faults had been corrected. This truth has been proven by experiments.

The rules, which apply rather to the thought than to the way in which the thought is expressed, are six in number. Anyone who has to judge the value of a business letter before it is mailed will find in them tools far more significant than his own individual preference or dislikes.

Avoid Debatable Statements.—Never assert in any way in your letter that which is debatable or untrue. In other words, never give the prospect a chance to argue, to doubt you, or to say "no." Every sentence and paragraph is to be so written that the prospect must admit its truth. There is a danger, for instance, in saying "You are a busy man," or "You have seen our letters." You do not know these facts for certain. You can get around the difficulty by adding "doubtless" or a similar qualifying phrase, which makes your sentence absolutely true.

The significance of this principle will probably not become entirely clear, however, until we come later to the underlying psychology of the matter. The same is true, in part, of the five rules following.

Maintain Continuity of Thought.—Never check or interrupt the steady flow of your prospect's thought. An

ambiguous statement, or a statement that has not been introduced logically earlier in your letter, does just this. Do not allow these "breaks" in your letter. In the opening paragraphs, express or imply everything that the letter as a whole is to contain—every idea it is going to convey to the prospect's mind.

Use a Whip.—Make your letters easy to read. A western sales office shortens this statement, and says, "Use a whip." The idea is simple in practice, because all you have to do is to break your letter up into many paragraphs, separating long or tedious paragraphs with contrasting short and easy ones.

But take care to have these short paragraphs packed with significant meaning. When an engineer is constructing an automobile road up a hill, he does not usually make just a single gradual incline. First he has a rather steep incline, then a flatter incline, in order that the driver may let his machine gather new momentum for the next steep incline; and so on to the top. Solid type on a page is, to the average reader, like a single long incline to the motorist. Short paragraphs, on the other hand, serve as rests and keep the reader's interest alive and active.

Leave Nothing to the Imagination.—In every letter, give or imply all the facts about your proposition that the reader could possibly want to know. Perhaps a better way to put this rule would be: make clear, either by what you actually say or by what you imply, every service that your proposition is capable of rendering the prospect.

In practice, it usually works out that the prospect is satisfied after he is sold on some one point which happens to interest him most, all the other points being more or less distinctly grouped and valued equally with this one satisfactory point in his mind.

Slogans in advertising often illustrate this rule. Take, for example, "The Prudential has the strength of Gibraltar." This slogan makes a direct assertion. But, in addition, it indirectly implies that the concern in question has all the virtues of any other concern. The

complete assertion is, perhaps, "The Prudential has all the prospect could possibly find in any other company, and in addition it has the strength of Gibraltar." This, at least, is the effect on the reader. So the slogan sets forth, partly expressed and partly implied, the full service toward which its promoters strive.

It is precisely in this sense that the fourth rule is to be understood. In a letter, the host of particular services that the proposition will render the prospect can, in a similar way, be grouped in larger and larger classes, until a paragraph or a sentence, or even a single word, will denote all of them.

Avoid Alternative Offers.—Avoid confusing the prospect by presenting to him a series of propositions from which he must make a selection. Avoid alternative offers, in other words. The reason for this rule is a matter of psychology and will be discussed later. Meanwhile, there is one qualification to the rule: there may be cases where the writer will find he must make such offers.

It remains generally true, nevertheless, that an appeal made on one issue alone is more effective than an appeal where the prospect has to make a choice. This can be proved by anyone who cares to experiment. The way to avoid choice offers is a "11st problem"—divide your prospects rather than your offer.

Make Only Positive Assertions.—Make your letter portray advantages to be gained, instead of evils to be avoided. Be positive, rather than negative. In the business world it is perhaps easier to threaten and scold than to be constructive, just as it sometimes is in the nursery. But the best results come when you think out some positive benefit your prospect will receive when he does what you want him to do.

These, then, are the six principles. They cover the important aspects of letter-writing. An explanation of the psychological processes on which they rest will help make them clear.

The underlying principle from which the six principles may be deduced—a principle which every letter

writer will do well to keep in mind—is called the psycho-physical process or reaction.

Psycho-physical Reactions.—In practice, to be sure, every sale, collection or adjustment, from the point of view of the prospect, is a complex process involving possibly hundreds of subsidiary psycho-physical reactions; but it is not necessary to go into that. It is enough to regard each one of these series of processes only as a simple combination of three elements:

- (a) Nervous currents running into the brain (stimulus);
- (b) Brain excitations;
- (c) Nervous currents running out from the brain (discharges).

All this is physiological. There is in addition the consciousness which accompanies the brain excitation, but is not a part of it.

To touch a hot object, for example, to feel the heat, the pain, and to withdraw the hand, is a psycho-physical reaction. So also is the experience of seeing an object, and recognizing it as a book or a picture. So also, even if in a much more complex form, is the act of receiving, opening, reading and answering or throwing away a sales letter. This last action, to repeat, is as a matter of fact a whole series of psycho-physical reactions; but for the present purpose it may be considered a single, simple process.

Now, what has all this to do with the simple, everyday necessity of writing sales letters that will get orders? Just this: it follows that every word and sentence in your letter, circular or advertisement should seek: first, to start one of these psycho-physical processes; second, to build it up slowly and carefully by degrees until the brain excitation is sufficient to break over and permit the third element in the process to result in a discharge in favor of your proposition.

When that happens, a sales letter results in a sale; a collection letter brings a remittance, or at least a response; an adjustment letter successfully handles a complaint.

The Use of Strategy.—So it is successful strategy to put into the sales letter whatever will hasten the development, and increase the extent, of this favorable brain excitation (and the corresponding mental ideas and feelings). On the other hand, bad salesmanship puts into the letter something that hinders this favorable psycho-physical process, or cuts off such a development entirely.

This, then, is the psychological background. Some people balk at the word "psychology." They apparently believe that big words hide little ideas, and theory forgets practice. Well, let us see what these psychological principles have to do with the six rules given above: how they help the development of something like a real science of business correspondence; and how, finally, such science will help you and me to write letters that bring a higher percentage of returns.

Moulding Your Prospect's Opinion.—Take the first rule. It asserts, you will remember, that under no conditions should your letter contain a statement which the prospect can deny. One apparent exception to this is the case where the correspondent may feel it is absolutely necessary to assert something which his prospect might deny. From the point of view of the whole letter, making such an assertion may be all right. This is especially true if you can make several assertions which the prospect must admit, leading up with them logically to the assertion which you fear your prospect may deny. Then if he does deny it, he must confess himself at fault in having admitted the previous assertions. A strong close may often be developed by such handling.

Leaving this question aside, however, what happens—psychologically—when a prospect comes across a sentence or assertion that is not convincing? At once there arises in his mind a conflict, which is in reality an antagonistic psycho-physical process. The very existence of such a process, however slight, is a detriment to the letter's chances; it hinders the development and completion of the first favorable process.

One Idea at a Time.—Only one idea can occupy the prospect's attention at any one instant, and when two or

more ideas are pressing they pull against one another. The stronger the antagonistic process is, the less opportunity is there for the sales letter to succeed. In psychological terms, the favorable process is crowded out; no "discharge" is possible. In everyday terms, the prospect does not mail the order you want him to.

This is the reason why the letter writer must use extreme care to put in the mind of the prospect only such ideas as he wants to have there, and why he must guard against letting in ideas which are opposed to his purpose. The prospect is only too liable to let these suggestions jump into his consciousness, without your suggesting them. As an apparently harmless phrase often has an unsuspected "kick" to it, the importance of choosing writers who are naturally tactful and then training them to know the viewpoint of their readers is evident.

To keep out of the reader's brain any process other than the one you wish to foster is not enough, however, to advance this desirable process. The ideas in the letter must actively excite his brain in the desired direction. So you must put into your letter as much "meat" or "stuff" or "punch" as possible. If these word-images are properly chosen, they will pull up hosts of other associated images. These are all valuable in building up the favorable process toward the point of discharge.

Psychology of the Second Rule.—There may be danger here, however. To guard against it, the second rule of correspondence comes into play. That rule, you recall, is not to allow "breaks" in your letter.

By "break" is meant any unusual phraseology which stops the prospect's flow of thought, or any new thought or idea which is unexpected because it has not been implied earlier in the letter. It is obvious that when such a break occurs, the mental process you have been striving to build up in your prospect's mind is broken down, and a new process has to be built up. In other words, you have to start all over again to sell the prospect, if you make a break of this kind. Naturally, this works against your success. It is like throwing water on a fire you are trying to make burn.

The first two rules are negative. They point out grave dangers that always confront correspondents. They indicate the means that may be used to avoid retarding the psycho-physical process that is to terminate in the sale, the collection or the adjustment.

The "Why" of the Third Rule.—What are the positive things that help the process along—accelerate its development? The third rule is the answer: "Use a whip." This principle should be understood in a double sense. On the one hand, it has to do with the physical structure of the letter. The letter ought to look easy to read. It should be so worded and paragraphed that it is easy to read, for solid type is uninviting and hard on the eyes.

But there is, on the other hand, a psychological as well as physiological reason for the rule. In exactly the same way that a whip stirs you up if you are hit by it, so the thought in your letter ought to stir up your prospect's mind. And snappy paragraphs always have this definite value if you summarize what has gone before, and prepare for what is coming. They are psychological "level grades" like those that help the motorist on a steep hill—a kind of mental breathing place. It is a significant fact that the most successful letters out of the forty million had these "whips" in the largest number. It may be added, in passing, that the psychological "whip" can be present in a letter even if the short, sharp paragraphs are not used.

Stimulating Brain Excitement.—The fourth rule, like the third, is positive. I will repeat it for the sake of clearness: In every letter give or imply all the facts about your proposition that the reader could possibly want to know. The idea, of course, is to make the amount of favorable brain excitement, and the mental excitement as well, as large as possible. The more excitement there is, remember, the greater is the likelihood of the favorable discharge you wish for. In other words, if you get your man all worked up, you are more likely to receive the order. So, if you get the interest of a prospect at all, the greater the number of favorable points you can bring to his attention the better. The

limit of this policy, plainly, is the complete service your proposition can render. So this fourth principle is not merely helpful—it is basic. In this connection there are a few incidental helps for correspondents which are perhaps worth noting here. For example, whatever serves most to develop imagery helps your letter. Nouns, therefore—as many of them as possible—are good. They represent objects or things, and these always induce images. The right use of adjectives helps also. Adjectives can always be used to qualify nouns, or to give the meaning a novel twist or limitation. Indeed, one successful correspondent says, “It’s adjectives that put the punch in a letter.”

Repetition is a third means. Judicious restatement of any thought, if not carried to the point of weariness, is effective. Especially valuable is it when prospects are likely to be skeptical about your proposition. In loaning money, selling bonds or real estate, for example, or whenever an important point has to be emphasized, this rule applies.

Alternative Offers Shift Attention.—Regarding the fifth rule, it has already been pointed out that it may not always be possible to avoid offers involving a choice. Take the catalogs which mail order houses use, for example. Many of the articles listed could not be advertised separately, because of the relatively great expense. This is one case where it is not possible to follow the rule literally.

But in general the rule proves true, psychologically. Only one process can occupy the prospect’s attention at one time. It obviously follows that a selective proposition requires consideration first of one offer and at a later moment of the other. In order, therefore, to consider two or more propositions the prospect must continually be shifting his attention.

Furthermore, when the final moment of choice comes, and the prospect weighs the various propositions you have put up to him, a new law of psychology comes into play. This law brings out the fact that neither idea can become so clear and strong as either one of them might become by itself. The rule has been proved

in practice as well as in psychology, for sales propositions with choices and without choices have been tried out, and—other things being equal—the alternative offer never does so well as one allowing no choice.

Emphasize Positive Advantages, Not Negative.—The last rule is slightly different from the others. You will recall that it suggests portraying in your letter advantages which the prospect will secure if he takes up with your proposition, rather than portraying evils he will avoid.

Psychologically, what is the reason for this rule? A complete explanation would call for a lot of technical phraseology, but a brief outline will suffice. Feelings, as well as mental images, are correlated to brain states. And, roughly speaking, pleasant feelings occur when the nervous currents running out of the brain discharge into the muscles of the body which cause the limbs to open or extend—the extensor muscles. Unpleasant feelings occur when the nervous currents discharge into the flexor muscles: the muscles which cause the limbs to close.

Everyday illustrations of this fact are numerous. "The glad hand," for example, is an open hand—open because the nervous discharges are going into the extensor muscles. On the other hand, clenched fists, a drawn face and a crouching figure are almost certain signs of the opposite kind of feelings.

In general, these two kinds of feeling denote, respectively, the two attitudes which we call positive and negative. And a positive letter is one that induces pleasant feelings; a negative letter one that induces unpleasant feelings.

The positive letter pictures desirable things which may be secured by the action suggested in the letter. The negative letter speaks only of undesirable things, which are to be avoided. Good salesmen, perhaps unconsciously, know it pays to be positive. Before they try to sell a man, they make an effort to get him in good humor.

The whole point, of course, is simply that when you work from the negative angle you encounter resistance

due to the contracting attitude which you have to overcome before any favorable action is possible.

And, of course, writing a check or signing an order is a favorable action, accomplished only when the attitude is positive and discharges are going into the extensor muscles. Forcing an order from a man, of course, might be an exception. But you can not force orders by mail—they must be earned by carefully built persuasion.

So much for the six rules of good letter writing, and their psychological background. Each man, of course, will state the rules in his own way. Perhaps the whole subject simmers down to the old proverb, "Don't rub a cat's fur the wrong way;" and its corollary, "If you want the cat to purr, rub his fur the right way." The six rules serve as guides that show which way to rub.

HOW TO ORGANIZE A SAVINGS AND LOAN ASSOCIATION

Nearly all associations aim primarily to develop a habit of saving among employees and secondarily, to provide a means by which any employee may borrow money with little expense. Nearly all extend membership to every employee. In general, the officers consist of a president, vice-president, secretary, treasurer, and a board of directors, chosen at the annual meeting. The greatest diversity exists, however, in regard to shares, deposits, loans, fees, fines, investments and distribution.

Preliminary Work.—When you have gone through your list of problems and conditions and analyzed each, either alone or with the assistance of a few picked men, appoint "a committee to assist in founding a cooperative savings and loan association" with every member an employee. If your company maintains a service or welfare department, or a club for the advancement of the employees' interests, let the club appoint this committee. In conference with this committee, look at the whole problem from the point of view of the worker.

Get his approach, his "angle," his ideas and suggestions.

Combine the results of your preliminary study with the new ideas and proposed methods obtained in conference with the workers. Make up a tentative committee report which will include a set of by-laws, if the association is to be a part of a larger employees' club, or a constitution, if no organization exists. Run off mimeographed copies of the tentative report. See that a copy goes into the hands of every employee. Ask for criticism and suggestions. Give him a week to think about them. Give him a loosely drawn up "ballot" to fill in and extend. Let him drop this in a conveniently placed box.

Use Employees' Suggestions.—When suggestions come in, they can, if thought advisable, be worked into the final report of the organization committee. In this way every employee gets a voice in organizing the association. It represents his work, his thought, his time. It wins his interest at the start and is likely to win his loyalty more quickly than if he first saw the plan of organization in final form. Best of all, this kind of cooperation puts into motion a self-advertising campaign among the employees themselves.

The final step is the adoption of the revised report by the employees, and the election of others as provided in the by-laws or constitution. When this is done, direct control of the association passes into the hands of the employees themselves.

Any plan which keeps the control in the hands of the owners of the business is likely to be looked upon with some indifference, if not suspicion by the average worker. Management control is necessary under certain conditions, as in a factory where all the workers are young women with little education, but ordinarily it seems of very doubtful value and usefulness.

These steps that have just been discussed form, in a general way, the plan usually most successfully followed when establishing an association.

Eight of the most vital problems encountered in the formation of a successful savings and loan association are presented in the subjoined plan, in the form of an-

swers to individual questions. What is widely recognized as the preferred method is shown by the first answer to each question.

I. On what financial basis shall the association be operated?

THE CELLULOID COMPANY

Each member of the association deposits twenty-five cents or more weekly. There is no limit to the sum that can be deposited weekly or annually.

THE CHICAGO AND NORTHWESTERN RAILWAY COMPANY
(GENERAL OFFICES)

Shares of a maturity value of twelve dollars each, paid for at the rate of one dollar per month.

THE FORD MOTOR COMPANY

One dollar at least deposited on each of the first two pay-days in each month, or more, if desired.

THE WILLIAM FILENE'S SONS COMPANY

Any sum from five cents upward deposited weekly.

THE NEW YORK LIFE INSURANCE COMPANY

One dollar per share deposited in first Monday of the year; ninety-eight cents the second Monday; ninety-six cents the third Monday; and so on, decreasing by two cents each week until 50 deposits have been made. By the middle of December for each dollar started the member has saved \$25. Encourages continuous saving but, the size of the deposit is inflexible.

THE NEW YORK EDISON COMPANY

Instalment shares, payable one dollar per share monthly matured value \$200.

Savings shares, payable in any sum at any time, matured value \$200.

Juvenile savings shares, payable in any sum at any time, for minors only, dividends equal to 80 per cent of the rate at which dividends are apportioned to instalment shares. No fines chargeable. No voting power.

Accumulative prepaid shares, maturity value of \$100. Class I, \$75 paid at subscription. Class II, \$90 paid at subscription.

Income shares, of single payment of \$100 at subscription. Class I, dividends not exceeding five per cent per annum. Class II, dividends at same rate as instalment shares. Not withdrawable for a fixed period not exceeding ten years.

THE PENNSYLVANIA RAILROAD

Any sum in even dollars, not exceeding \$100, may be deposited in any one month.

II. How will deposits be made?

FIRM A

By automatic deduction from payroll on signed request of member. Deposit itemized in pass books, which may be collected or presented in person.

THE CELLULOID COMPANY

Money enclosed in heavy manila envelopes, sealed, and dropped into conveniently located "ballot" boxes which are guarded.

THE JOSEPH AND FEISS COMPANY

Bank books not already in employee's possession distributed on pay day. Each book has an envelope permanently attached to inside of front cover. Money and new deposit slip (filled in) enclosed. Turned in at the service desk.

CHICAGO AND NORTHWESTERN RAILWAY COMPANY

(GENERAL OFFICES)

Collectors, appointed for each floor, make rounds on pay-day.

THE CHICAGO TRIBUNE

Deposits payable in person to treasurer.

III. Shall the amount that can be deposited be limited?

THE NORTHERN TRUST COMPANY

No limit—any number of shares can be taken—but only ten can participate in the distribution of profits.

THE CHICAGO AND NORTHWESTERN RAILWAY COMPANY

(GENERAL OFFICES)

Any number of shares from ten to twenty, inclusive.

CARSON, PIRIE, SCOTT AND COMPANY

Any number of shares may be taken, but only twenty can participate in distribution of profits.

THE PENNSYLVANIA RAILROAD

An employe can not have a balance of more than \$5,000.

THE METROPOLITAN LIFE INSURANCE COMPANY

An employee's annual deposit may not exceed five per cent of his annual earnings without the consent of the board of directors.

IV. In what amount shall loans be made?

THE CELLULOID COMPANY

Depositors may borrow in any amount from \$1 to \$200, regardless of amount on deposit, except in the case of minors. No endorsement required on loans up to \$25.

THE NORTHERN TRUST COMPANY

Any amount, without endorsement, in multiples of \$5, up to \$50, regardless of deposits. Loans of over \$50 made under special conditions.

CARSON, PIRIE, SCOTT AND COMPANY

Any amount up to \$25 on demand. No endorsement. Special conditions govern amounts between \$25 and \$50, and between \$50 and \$200.

THE CHICAGO AND NORTHWESTERN RAILWAY COMPANY

(GENERAL OFFICES)

Any amount, without endorsement, not to exceed \$15 over the amount of deposits on hand. Higher loans referred to executive committee.

THE CURTIS PUBLISHING COMPANY

Not to exceed nine-tenths of amount paid in.

V. For what period shall loans be made?

THE CELLULOID COMPANY

Loans in the form of notes that may run for three months or less.

SPRAGUE, WARNER AND COMPANY

Notes run for thirty days, and may be renewed once.

THE WILLIAM FILENE'S SONS COMPANY

Notes are not taken for a longer period than six months.

THE CURTIS PUBLISHING COMPANY

Notes run for not less than one month. May run a year.

THE FORD MOTOR COMPANY

Loans of \$20 or less due next pay day. Amounts over \$20 loaned under special terms fixed at the discretion of an administration committee.

VI. What interest will be charged on loans?

THE CELLULOID COMPANY

Maximum charge is one per cent on one dollar a month.

THE NORTHERN TRUST COMPANY

For two weeks, 10 cents on \$5.00, 20 cents on \$10.00, 30 cents on \$15.00, 40 cents on \$20.00, and so on.

THE CHICAGO AND NORTHWESTERN RAILWAY COMPANY
(GENERAL OFFICES)

One cent each week on each dollar borrowed. No fee less than 10 cents.

THE CURTIS PUBLISHING COMPANY

Six per cent per annum plus a fee of 10 cents.

SPRAGUE, WARNER AND COMPANY

One cent each week on each dollar borrowed, for loans of \$25 or less. For loans above that amount charges determined by executive committee.

THE JOSEPH AND FEISS COMPANY

No interest whatever is charged by The Clothcraft Penny Bank, but an investigation is imposed.

VII. What penalty will we impose for non-payment of deposits?

THE CELLULOID COMPANY

Loans are refused.

THE CURTIS PUBLISHING COMPANY

Charges depositor a fine at the rate of one cent per week for each share.

CARSON, PIRIE, SCOTT AND COMPANY

For failure to deposit for two succeeding Mondays after a pay day, a weekly fine of 2 cents on each share is imposed. For 10 weeks this fine amounts to 20 cents for each share. This fine is then deducted from the deposit and the balance paid to delinquent, who ceases to be a member.

THE NEW YORK LIFE INSURANCE COMPANY

Any member who is more than three days late with his deposit is fined ten per cent of the amount due.

Note: In case of illness, certified by a physician, all companies exempt members from fines for a non-payment of deposits.

VIII. How will funds be invested?

THE NEW YORK EDISON COMPANY

In bonds or mortgages secured by real estate.

THE FORD MOTOR COMPANY

The administration committee may invest as it thinks best.

Note: Many associations lend to the company itself at a fixed rate of interest any surplus not necessary for loans. Other associations deposit the surplus in a savings bank.

A MODEL PROFIT-SHARING PLAN

Mr. Boyd Fisher, vice-president of the Executive Club of Detroit was commissioned by the publishers of this encyclopedia to make an exhaustive analysis of the profit-sharing plans in operation in this country. His investigation included 125 firms where such systems are, or at one time were, in operation. From the mass of material he gathered during the time necessary to make this investigation, he has by a process of elimination, compiled the following plan which

represents the salient features of those profit-sharing plans which he considered the most meritorious. These various features have been fitted together to represent a consistent and at the same time workable plan. He has made no attempt to compile a model plan applicable to any and all conditions, but rather to present in concrete form one which will serve as a guide to the business man who may be considering the inauguration of a profit-sharing plan in connection with his business.

AN OUTLINE OF THE PLAN

The company adopts this plan of profit sharing with its men as an amendment to the by-laws, to remain in effect until amended or abandoned as hereinafter provided.

1. After paying to preferred and common stockholders an annual dividend of five per cent (eight per cent; ten per cent; etc.), and making due provision for reserve or sinking funds (define exactly), the company will divide with its honorary employes (contract employes; shareholding employes) any sum remaining, paying to stockholders in proportion to their dividends and crediting to honorary employes in proportion to their yearly wages.

2. Profits shall be computed semi-annually.

3. The sums credited to honorary employes shall be applied to the purchase of shares of the company's (common) stock at the market value, as determined by the average price of the last one hundred shares sold.

4. An employe may become an honorary employe, eligible to share in the profits, upon signing a contract with the company agreeing to place all stock earned from profits shared upon deposit with the company during the term of his employment, at the company's option to purchase when the employe leaves the service of the company.

5. Only employes who have been continuously in the employ of the company 4,500 (3,000) hours at the factory (or one year) may become honorary employes.

6. Honorary employes shall be given a pass book in which are recorded the status of payments on the stock, terms of contract, etc.

7. Profit-sharing premiums shall be calculated upon the basis of annual salaries or wages, not deducting for any sickness, save after two months' absence. When, however, the amount of stock purchased for an employe from the premiums credited shall equal in value the employe's yearly salary, the premiums shall cease (or, if continued, be paid henceforth in cash). After an employe shall have been a shareholder for five years he may subscribe for an additional amount of stock, equalling twenty-five per cent of his annual salary, and after he shall have been a shareholder for ten years he may subscribe for another amount of twenty-five per cent.

8. Employes for whom stock is being purchased may contribute to the purchase fund amounts to be credited in their pass books, and to draw interest at four per cent until the share upon which payment is applied shall have been paid for, at which time dividends shall be paid to honorary employe stockholders on equal terms with other stockholders.

9. The contract of honorary employe shall specify that they waive as stockholders any presumed right to examine the books of the company.

10. Honorary employes, however, may nominate a director or representative of their own selection, who shall be bound in every respect by the votes of the board of directors.

11. The company may cancel the contract with an honorary employe at any time by re-

paying to him amounts paid on shares of stock, and paying the market value of the stock held by him. If the employe is wasteful or inefficient, the company may elect to rest the decision as to cancellation of contract with a committee of the honorary employes. (This is Mr. Fisher's own suggestion, based in a slight degree upon the Northway plan of placing important questions before its older employes. It is designed to secure a measure of democratic control of the profit-sharing plan, and to make the workers actively cooperate in keeping employes efficient.)

12. Employes may make application for withdrawal from the profit-sharing plan, but if during a semi-annual period, they shall draw no profit for any portion of that period. Employes may withdraw at any time by giving notice in writing and will receive money or stock due them, on surrendering their pass books. If they withdraw before two years' participation, they shall have refunded to them only the amounts paid by them in cash, as contributions to the purchase of stock. Profit sharing is intended only for permanent employes.

13. Upon an honorary employe's leaving the company, the company may elect to let the employe continue to draw dividends as a pension fund, and to allow the employe to hold the contract to sell his stock subject to fulfillment at any time he goes into the employment of a competitor or into work for which he draws over one-half his former salary.

14. When a woman honorary employe marries she is entitled to draw in full the value of her stock and accumulated premiums to date. When an honorary employe dies his legal representative is entitled to draw in full the value of this stock and the accumulated premiums to date.

15. The profit-sharing plan may be amended or discontinued by the directors, but the vote shall not become effective until after the date for the declaration of the premium next following.

Mr. Fisher states that the following explanation of some of his selections for his model profit-sharing plan is due:

The Division of Profits.—The proposed equal division of profits after five per cent, or six or eight or ten per cent, of the profits are paid to preferred stockholders, means only that the percentage is the same. If the wages of the honorary employes should exceed in amount the sum paid in dividends to shareholders, the workers would draw more of the profit-sharing dividend.

One Objection to Profit-Sharing Plans.—The chief bugbear of stock-sharing plans is the problem of possible ownership of stock by men who acquired it while with the company, but who have left and who are no longer in a position to be influenced to the company's advantage. Obviously no company wants to face the possibility of having its entire industrial issue held by men no longer employed with it. Beginning, therefore, with the Godin and Leclaire plans, the best plans have provided that stock ownership by workers shall affect only those actually at work, and that when they leave the company they must sell their stock. The Baker Manufacturing Company makes the men sign a contract to resell to the company, and to bind it they actually pay as much as three-quarters of the value.

Should the Men See the Books?—The idea of letting men see the books, also, is objectionable to most managers, and this is avoided by the Procter and Gamble and the Dennison plans used by the Procter and Gamble Company and the Dennison Manufacturing Company. If workmen stockholders may select a director, and it seems entirely safe and desirable to let them do so, they may feel assured that the plan is sincere and honest, even if they don't see the books.

HANDLING OFFICE CALLERS

Both the salesman's time and the buyer's time are valuable. Usually, however, the buyer's time is the more valuable and if he is anxious to attain the standards of personal efficiency demanded of the modern executive, he must work out a definite plan for handling callers. One buyer for a machinery jobbing house, who is forced to make every moment count, uses both a table and a desk in his office to expedite his calls. The two work places, fitted complete in every detail are arranged back to back in his office. When one salesman arrives while he is talking to another, the second goes to the vacant table and lays out whatever he has to sell. If the salesman he is talking to is inclined to overstay, he explains that he does not wish to keep the second waiting. In this way he excuses himself gracefully, leaving the first caller to put away his samples while he goes over to the other. This saves much time during the day. The buyer for a large banking house uses two methods—one when others are waiting, and the second when no other salesman wants to see him. In the first instance, he brings the long-winded man to a close by motioning the new caller into a chair on the other side of his desk, with the statement he will be done in a minute. He has found it pretty hard even for a long-winded man to continue a useless conversation in the presence of another man who is waiting.

Using a Buffer.—In another bank the buyer of supplies sends his stenographer to talk with salesmen first. She then returns and reports to him briefly what they have. He invites them in or not, according to his need of the goods offered. A quite similar plan is followed in a large machine shop. In this instance, however, it is a male stenographer who has the preliminary interview, and there is still another man between the salesman and the real buyer. The salesman is admitted to the "middle man" if the company has need of information or goods, in the opinion of the middle

man. He gets the proposition and if it seems desirable, takes it to the buyer. While on paper it might seem as if salesmen calling there would feel the buyer too hard to "get at," the plan has nevertheless worked to the satisfaction of salesmen as well as to the buying department. Quick action has been the result. In cases where it is necessary for the salesman to spread out samples, in this office the stenographer sends them to one of two small rooms for this purpose, where they prepare to meet the middle man.

When the Caller Overstays.—At some plants there are, of course, salesmen from whom the company buys largely, who are ushered directly to the chief buyer first, the buyer feeling the need of market information, such as they can bring to him. To such as these the buyer listens as long as he has need to hear them, and, if one overstays, he often asks him out into the plant to look at some operation with which the goods the salesman has to sell may be connected. Very shortly thereafter the salesman finds himself at a side entrance door of the factory, and, a moment later, out in the street, with the buyer bidding him a smiling goodbye. It all comes in such a pleasant, natural way that the salesman hardly feels that he has been dismissed—which is the fact of the case.

A retail hardware dealer has his desk in the center of the room, a little back of the middle; and about six feet away there is a seat for those who want to see him. He is a man with an unusually large number of callers. When he talks with a salesman, the chair of the latter is so placed that he can not help seeing the others who are waiting. The merchant himself is a man of quick decision and the result is he has a reputation of seeing all callers quickly. If a salesman asks an opportunity to show him photographs or samples which he does not have arranged, the merchant leaves his desk and goes to the next caller while the salesman is preparing the goods to show him. Again, while the salesman is packing his samples, the merchant finds time for another caller or for work at his desk.

How an Architect Handles His Calls.—A busy architect has adopted two methods for saving his time and the time of the caller. In the beginning, he has set aside two hours in the forenoon to see salesmen, and tries his best to see all who come. He will not see them at any other hours, however. His next preventive measure he has adapted from his physician's office and it consists of a buzzer under a rug at the outer door of his office. The salesman in conversation with him heard the buzzer when he himself entered—he knows that stepping on the rug caused it. He knows also that it is the hour for salesmen; and, as a rule, this architect says, callers will hurry along when they hear the buzzer two or three times as people enter or leave the office. If they fail to show such consideration, the fact that the buzzer has indicated an accumulating number of salesmen in waiting offers an excuse for the architect to suggest to the salesman that others are probably waiting.

The Polite Hint to Go.—The buyer for a manufacturing company whose plant is so centrally located that it is a sort of gathering place for salesmen in all lines, sees an unusual number of callers, yet does a surprising amount of other work, too. His chief method for bringing an unprofitable interview to a close is first to change the subject abruptly. For example, if the weather is blustering, he will say, as if not in the least moved by the enthusiasm of the salesman for his goods, "It is pretty cold out, isn't it? Is it getting colder?" For a moment, the salesman is off his guard. He answers the question, of course, and in doing so, brings the conversation about his goods to an end, for the executive arises, immediately, and asks him for his card, suggesting that if at any time his company becomes interested, he will communicate with the house the salesman represents. While the plan amounts to a flat dismissal, this executive has found it affords a pleasanter parting than if he were forced on being uninterested and too busy to talk.

Straining Out the Callers.—Another plan is that used by the president of a large Chicago wholesale

house, "I never like to interfere with my men in their interviews with men from the outside," he says, "yet I have found that a big proportion of the extra hours, delays in handling business and correspondence and errors due to slipshod haste is caused by an excess of time being given to interviews or calls of outsiders. This executive is said to do more work in his six hours a day, and do it more easily, than many executives who spend ten or twelve hours a day in their offices. For his own interests he developed a method of handling callers. He tactfully gave his men the benefit of this experience and they profited by it. No caller is directly admitted to this president's office. The information clerk meets the caller, learns his name and business, or secures his card. "I will see if Mr. Blank is unengaged," he tells the caller, as he takes the card or the name to the president. Sometimes the president sends back word he cannot see the man. If he is in doubt as to what matter the caller wishes to discuss, or if he knows it does not require much time, he leaves his office and meets the caller outside the "dead line" railing; usually with some papers in his hand. No warning is needed to impress the caller that he is interrupting a very busy man. Should the matter require a little private discussion, the president invites the caller inside the railing of the outer office, usually with some such remark as "Come inside a minute or two." Here the matter is discussed; and as the president is being kept out of his office and away from his work, it is an easy matter for him to end the interview by saying he must get back to his desk.

Making It Easy to Dismiss Callers.—"A handy extra chair is the worst thing in the world to invite and hold a caller," this president says. He keeps "guest chairs" just outside his office door. Should a caller get inside the private office he has no chair. "Once he lands in a chair, it's practically impossible to get a man out without dynamiting him until he has told the whole story," explains the executive. Where the caller gets inside the private office, the president leads him out by going outside himself. Here the "You're-holding-me-away-from-

my-work" impression is given, and the president can cut the interview easily and tactfully. Where the caller is welcome and much time is required, the "guest chairs" are brought in by the office boy. This method is tactful and handles effectively both the caller whose call is for a worth-while purpose, and the man for whom a minute of the president's time will suffer.

HOW TO DISCOVER WHO MAKES THE MISTAKES

What are the most common mistakes of employees? How frequently are these mistakes repeated? What is their cost in terms of good-will and waste? These are three questions every business man should ask himself. When he sets about answering them he discovers some astonishing facts. For instance, one merchant found that among twenty-five hundred employees an average of twelve thousand errors were being made every month. He found that the result from the point of view of customers was a daily grist of two hundred complaints. The errors were of every conceivable kind, from the illegible writing of a salesgirl to an overcharge by a bookkeeper. He listed about three hundred and seventy-five kinds, all told. Every one of these errors caused delay, trouble and dissatisfaction somewhere down the line.

Errors are Due to Carelessness.—His problem, therefore, was: How to at least approximate the ideal—an errorless force of employees? The merchant realized that it was impossible to eliminate all errors. But he believed that in many cases the mistakes were merely due to neglect or carelessness, and that they would not have happened had the employee definitely kept in mind a goal of accuracy. To furnish such a goal, he established a system which reduced errors to less than one for each employee, as against about five per employee before.

How the Merchant Went About It.—First of all he listed, by departments, the errors that a six-months' study told him were made in those departments. The various errors were classified, and each error was given a number. Then he had printed lists made, on which is indicated the date, the number of the employee at fault, and, along the left, a column in which a check mark against the particular error which the employee has made. The employee at fault is required to sign the slip, thus acknowledging the mistake and assuring an accurate record. The policy reason for this is, of course, the fact that, when the employee's error is called to his attention in this way, he is likely to be strictly on his guard against slipping up in the same way again and making the same mistake twice. In the office a careful record of these error slips is kept. For each employee there is an envelope in which slips charged against employees are filed.

Rewarding Errorless Employees.—Merely keeping these records would probably help but little, were it not for the fact that the merchant offers an incentive to employees to secure errorless records. Each month those who have not had an error checked against them, received what is termed an "honor card." This states that the employee has been most proficient in his work, and is therefore entitled to a half day's vacation at the firm's expense.

Penalty for Habitual Carelessness.—Plans were also made to handle employees whose errors are more numerous than they should be. Each month a list is made of the one hundred workers who have the largest number of errors posted against them. These employees are called into conference. Anyone who is in this class month after month is in serious danger of discharge under the conditions and it is not difficult to establish the justification for a discharge under the conditions. One special point of interest is the fact that tardiness is counted an error.

THE HAND OF THE LAW IN THE POST-OFFICE

The postal laws have been enacted to prevent the use of the mails as an instrument of fraud, to protect the citizens in their right of reputation and of property, and, so far as possible, to secure for the people generally a high standard of morality.

Stringent Laws Are Necessary.—The recent discoveries made by the postal authorities in their vigorous efforts to prevent the use of the mails for the promotion of fraudulent schemes illustrate the necessity of stringent and effective postal laws. Given a mere paper corporation, a skillful promoter, a worthless piece of land and a selling agency, and the mails can be used to call from the pockets of the unsuspecting citizens millions of dollars. But thanks to the activity of the Postal Department and to the increasing shrewdness of the average citizen such injustice will soon be minimized. Only recently the government authorities have undertaken the burden of prosecuting those who have been reaping a rich harvest by using the mails to advertise medicine of no curative value, and who by such fraud have taken the needed penny from those who, in the hope of benefiting a loved one, have spent it willingly. The statute for the prevention of the use of the mails to perpetrate such frauds is, therefore, of general interest, because of the circulars and prospectuses which are scattered broadcast over the land, and because, operating under this statute, the postal authorities, by vigorously prosecuting offenders under this law, have given ample warning to the people generally to beware of all such schemes. Even so, it is surprising to observe how many individuals, apparently possessed of ordinary intelligence, will purchase stock simply because an attractive prospectus has been sent to them.

We call attention to another law which is germane to the subject under discussion. One section of the postal law prohibits the mailing of obscene books, pamphlets, pictures, letters or other publications of this

sort. Its sole purpose is to protect the morals of citizens, and for this reason the mailing of an immoral letter, even if it be enclosed in a plain envelope, is an indictable offense.

Unmailable Matter.—But the law which one is apt to violate unwittingly or thoughtlessly, is a part of another section, which prohibits the mailing of any matter, whether it be a letter or postal card, on the outside of which there are delineations, epithets, terms or language of an obscene, libelous, scurrilous, defamatory or threatening character or calculated by their terms or manner of display, and obviously intended to reflect injuriously upon the character or conduct of another. Under this section he who duns a creditor in an improper manner upon a postal card or by the use of a particular kind of envelope may be prosecuted. The question which puzzles the average citizen is, therefore, what language or style of display the courts consider as falling within the condemnation of the statute.

A Specific Instance.—Where a creditor wrote on a postal card, "I see very plainly that you do not intend to pay any attention to my letters or your agreements. I propose to get the balance due on that claim. I shall wait no longer, but will see what can be done," the court held that the writer intended to reflect on the character of the debtor. The words accusing the debtor of not paying any attention to his agreements were defamatory in nature and, since they were published on a postal card, the sender was held amenable to the postal law.

In another case where the amount due was \$1.80, and where the creditor reminded the debtor of his obligation by a postal card, and followed this by two other cards on which he wrote, "If not paid at once we shall place the same with our law agency for collection," it was decided that the language was threatening and that the placing of it on a postal card was calculated to publish the debtor.

Character Reflections Illegal.—In a third case, the words which appeared on the card were, "You have been fighting for time all along and now at the end you remit nothing. I will garnishee and foreclose, but I dislike to

do this; if you will only be half white." Had the writer of this last card omitted the last sentence it is possible that he might have been free from the penalties of the law, for the court intimated that a request to pay, accompanied by the statement that the creditor intended to foreclose, might not be of such a character as to render the postal unmaillable; but the last sentence was clearly intended to reflect upon the character of the debtor, and the writing was illegal.

On the other hand, the following language, which was written on a postal card, was held not to be illegal: "Why do I not hear from you? I see plainly I shall have to press this matter. I must hear from you by Wednesday night. I shall wait no longer." Obviously the words used may relate to an account, but at the same time they may relate to something else. Moreover, the wording is such that the character of the receiver is not attacked and there is no publication of his delinquency to the world.

Before stating conclusions as to the nature of matter which may properly be written on postal cards we shall refer briefly to a certain class of letters which have been sent through the mails for the purpose of collecting accounts and which have come within the prohibition of law because of the style of envelope used.

Misuse of Return Address.—In one case dunning letters were mailed in an envelope upon which were printed in large type the name of the collection agency and the return address. It was held that such a letter was not within the meaning of the statute for the reason that this style of envelope was used for the general business of the firm and because it also indicated the return address. But in another case, where the letters covered half of the envelope, were conspicuous in color, and were intended to indicate the character of the letter and not to serve merely as a return address, the court held that the purpose was to publish the delinquent and thus to injure his character. In other words, the size, style and manner of display constituted the difference between these cases.

Another agency, after making a demand for payment, hit upon the clever scheme of sending the first dunning letter in a pink envelope and the second in a black envelope addressed in white letters. This method was almost as reprehensible as that adopted by another agency which had its agents drive to the door of an unresponsive debtor in a hearse, thus calling the attention of all the neighbors to the "dead beat." The black envelope device was illegal because of the prohibitions of the postal law.

What the Law Requires.—The conclusion of these cases and many others which might be cited is that a simple request by postal card to pay an account is not illegal. The illegality occurs only when the language is libelous, scurrilous, defamatory or threatening, or when by its terms or style of display it is written to reflect injuriously upon the character or conduct of another. It follows, therefore, that an account may be rendered on a postal card. A simple request for payment may be made, together with a statement of any conditions, such as discount or time. Some business firms and associations find it convenient and economical to render such statements on cards, usually in printed form, asking for payment on or before a certain day, and indicating the discounts if there be any. So far as the law is concerned, this practice is proper, but it would be bad policy and of doubtful legality to accompany the statement with a threat that the account would be placed in the hands of an attorney or professional collector if not paid on a certain day.

Furthermore, any mark on an envelope which indicates the character of the letter and shows that the debtor is being published is as illegal as if the fact were stated on a postal card. The only difference is that the card accomplishes the purpose by actual written notice, whereas, the envelope accomplishes the same purpose by constructive notice.

The Penalty for Violators.—Common intelligence and a sense of business propriety usually prevent a man from violating the law, which is, after all, merely the state's method of enforcing what it considers common

justice and a due regard for the rights of others. Those who forget these common courtesies in the mailing of postal cards and marked envelopes, are subject to a fine of not more than \$5,000, or imprisonment for not more than five years, or both. Such a penalty should be a sufficient reminder to those who might otherwise be careless or willful in the writing of such cards and letters.

The average person knows that he is not permitted to enclose a letter in a book or in a bundle of merchandise and send it as third or fourth class matter, but at the same time he realizes that the law allows him some liberty in this respect.

Newspapers and periodicals, which are issued at stated intervals and as frequently as four times a year, belong to the second class. Upon such publications the sender may place his name and address, the name and address of the receiver, the index figures of a subscription book, the title and place of publication, the date when the subscription ends, the correction of typographical errors, marks to designate a passage to which attention is called, and the words "sample copy" or "marked copy." In addition, he may enclose bills, receipts and orders for subscriptions.

Violators of Third Class Section.—Third class matter includes books, transient newspapers, proof sheets and copy, and other periodicals, circulars and printed matter not included in the second class. In mailing such matter the sender may write his own name and address, preceded by the word "from," on outside of the package, and may mark in the book or paper any words or passages, other than by written or printed words and may correct any typographical errors. Upon the cover or blank leaves he may write a simple dedication or inscription not in the nature of personal correspondence. For example, it would be permissible to write on the front page of a book the words, "A little book of remembrance to my beloved son." But it would not be lawful to mail a book as second class matter if it contained the following: "A little book of kindly remembrance to my beloved son who is expected to visit his ancestral home

at the annual homecoming on Thanksgiving Day next."

Merchandise belongs to the fourth class, and upon the package or wrapper may appear the name and address of the sender, preceded by the word "from," and any marks, numbers, letters or names for the purpose of description. It will be observed that a strict construction of the law might not permit the enclosure of a card attached to each piece, giving the name of the individual to whom it is sent, and wishing him a Merry Christmas or an Easter Greeting; still this technicality is overlooked by the postal authorities and the general custom prevails. If there were no more infractions of the postal laws than this simple greeting to a relative or friend, the federal authorities would have just cause to believe that the millennium had come and to cease from their present arduous tasks in protecting the innocent public against frauds and deceits of the most vicious kind.

Ignorance Does Not Exempt.—Many an honest man has been indicted by a federal grand jury simply because he was careless in permitting his name to be used by a dishonest corporation or business concern as a director or officer. The so-called "dummy" directors may plead ignorance of the fact that their names were used on a false prospectus or on letterheads sent broadcast through the mails, and their ignorance may temper the verdict of the jury, but it does not excuse the crime.

The recent activity of the postal authorities in bringing to justice those who use the mails to sell worthless stock or medicine or merchandise should serve as a warning to those who might unwittingly violate this important federal law. The difficulty is that men think of fraud only as a direct, willful act on their part, and not in the sense that they may be violating the law because their names are linked with unscrupulous officers or agents who render them liable to the charge because of the methods which such men employ. The result is that although the victims may prove their innocence they have nevertheless been subjected to the expense and the humiliation of defending themselves in a federal court.

Innocent Must Suffer with Gully.—The conclusion is simple and the law is clear, for it is common sense.

The "dummy" director and the inactive officer or agent should know the condition of his company and the methods which are employed in its management, or he should resign. No man who stands for the best in business should permit his name to be used where the result may be injury to himself or to others. Many a one will take the chance of violating the law, but at the same time there are those who merely forget that the unscrupulous associate may drag them with him to the bar of justice and subject them to the pains and penalties of the federal law. To all such—the careless as well as the ignorant—we commend the maxim: "Eternal vigilance is the price of liberty."

Unmailable Merchandise.—The law prohibits the mailing of certain materials, including poisons, explosives or inflammable articles, matches, live or dead animals and reptiles, fruits or vegetables liable to decay, articles exhaling bad odors, vinous, spirituous or malt liquors, cocaine and liquids liable to explosion, spontaneous combustion or ignition by shock or jar, such as kerosene, oil, naptha or benzine.

Harmful articles which are not excluded must be so wrapped as to bear transmission safely without breaking, or injuring mail bags or those who handle the mail. Such articles, when not liquid, must be placed in a bag, box or removable envelope, and again enclosed in a box or tube made of metal or some hard wood with sliding clasp or screw lid. If the articles are liable to break, the inside box or envelope must be surrounded by sawdust or some other elastic substance. Liquids (not exceeding four ounces liquid measure) must be packed in strong glass bottles, and the bottles must be enclosed in a metal, wooden or papier-mache block or tube. Between the bottle and the tube there must be a cushion of cotton, felt or other absorbent. The block or tube must be of sufficient strength to support the weight of mails piled in bags and to resist rough handling and must be made water-tight, so that if the bottle be broken in transit the liquid will not escape.

KINKS IN A BILL OF LADING

The bill of lading constitutes the shipper's receipt for his goods and the railroad's acceptance and contract of carriage of these goods. The Interstate Commerce Commission has not required a particular form, but the uniform bill of lading is used by the great majority of railroads whether goods are shipped in car-loads or in less than car-load lots. The shipper or consignor makes out a shipping order of the articles to be shipped. This is given to and retained by the freight agent of the carrier. From the agent or bill-of-lading clerk the shipper then gets a receipt or bill of lading with the freight charges inserted. This is signed by both shipper and carrier.

The Uniform Bill of Lading.—Frequently shippers have in their possession blank forms of the uniform bill of lading and shipping orders, both of which they fill out and sign in advance. But whether they have them or get them from the agent as needed, the general practice is for the shipper to fill out his own bill of lading himself and have the carrier sign it. This saves the railroad's and the shipper's time when several are in line waiting for the carrier to sign their bill of lading.

The shipping order is exactly like the bill of lading, except that at the bottom it has space for that of the shipper only, instead of having a space for the signatures of both carrier and shipper. Some railroads also furnish a memorandum—which is an exact copy of the bill of lading. This the shipper keeps in his own file as a record and sends the original bill of lading to the consignee. The shipping order is kept by the carrier for its files. The carrier usually does not and will not sign the memorandum.

Bills of lading are therefore made out in duplicate and sometimes in triplicate, as above. In any dispute due to variance, the original, which the carrier signs and the shipper sends to the consignee, governs.

To make out a bill of lading and shipping order properly and intelligently, it is important to know and bear in mind several points—among them what a bill of lading is and its two legal phases and kinds. It is necessary also to know how to describe the articles so that they will be entitled to the best service and lowest rates applicable. Doing this, the shipper will have gone a long way towards handling costly mistakes and delays in handling.

Straight and Order Bills of Lading.—In the first place, the bill of lading has two forms, straight and order. The straight bill of lading, which is stamped "not negotiable," is provided for and is used on straight consignments of miscellaneous freight billed direct to the consignee. It is printed on white paper. The order bill of lading is used for consignments to order of consignee; and is printed on yellow paper. Take, for instance, a shipment of cotton on an order bill of lading. Here the bill of lading is virtually commercial paper, having a certain degree of negotiability, as was shown rather forcibly in the recent exposure of the fraudulent order bills of lading for cotton.

Bill of Lading Defined.—First, then the bill of lading defines a property right to the consignor or consignee. As the various states have control or jurisdiction over property and property rights within their territories, the Interstate Commerce Commission in Washington has said the bill of lading is outside its jurisdiction, though Congress can control it by means of the commerce clause of the Constitution. Substantially all that the Act to Regulate Commerce provides is that the interstate carrier shall issue a receipt or bill of lading; shall be liable for loss or damage caused by it or by any carrier receiving or transporting the goods whether initial, intermediate or delivering carrier (a suit against the initial carrier alone is sufficient); and that no contract or limitation of any kind shall exempt the carrier from such liability so imposed by the Act. The Act also requires reasonable regulations regarding the issuance, form and sub-

stance of the bill of lading, but prescribes no special form.

Duality of Bill of Lading.—In the second place, the bill of lading defines the contract and conditions of carriage, which come under the law of carriage. The conditions on both forms are the same.

This double character of the bill of lading is often the cause of misunderstanding as to the rights and liabilities under it. Section One of the conditions on the back in part provides that the carrier is exempt from liability or loss or damage due to an Act of God or to an act or default of the shipper or owner, or for differences in weights due to natural shrinkage. Paragraph two of Section Three provides that the amount to be recovered for loss shall be computed on the basis of, and be no greater than, the invoice price or value at the time and place of shipment, plus freight charges if prepaid.

Certain Exemptions Defined.—Under this contract of carriage an example of exemption due to an Act of God is the destruction of the goods by lightning. Another is the loss or damage by a car or consignment being swept away or damaged, as in the recent floods in Ohio. Suppose, however, that it is proved the railroad was negligent in allowing a car in transit to remain on a siding or in a yard en route an unreasonably long time, and that with due care the car would have been moved out of the danger zone, the loss is attributable to the negligence of the carrier and the carrier is therefore held responsible in an action for damages.

Suppose a car of fruit, peaches, properly iced, is shipped and sold f. o. b. shipping point for \$250. Due to delay and poor refrigeration en route, the consignment is found to be badly damaged, and the peaches subsequently sell for only \$250, whereas in good condition on arrival they would have brought \$500. Suppose the freight charges paid were \$50. Even though a profit was lost, because the fruit brought the value agreed upon no damage can be shown, and therefore no recovery had.

Bill of Lading Indicates Ownership.—Primarily, the bill of lading is evidence of title. In the case of cotton, where the bill of lading is forwarded with a draft attached for the value of the shipment, the bill of lading in the hands of the bank becomes collateral. The carrier, therefore, must refuse and cannot be compelled to deliver or surrender the cotton without presentation of the bill of lading properly endorsed, indicating that the draft has been paid by the holder and the holder is entitled to possession. If it is sold in transit, the transferee of the bill of lading is entitled to delivery.

Since ownership does not pass to the consignee until destination is reached and the draft is paid, the property right remains in the consignor until then, and any loss due to an Act of God or the perils of the sea would be his loss. In a shipment of peaches, sold f. o. b. point of origin, the ownership and risk of loss during transit was with the consignee. And this is true whether the consignor pays or allows the freight charges, or whether the consignee pays the freight on delivery or subsequently by reimbursing the consignor who made the contract of carriage with the railroad. In the case of the straight bill of lading, which is not negotiable, its surrender is not necessary, except in event of a reconsignment to a new destination. In this case, where the shipment has been placed for delivery at the point given in the bill of lading, it is necessary to give up the original bill, both order and straight, the agent there issuing a new one to the new destination. Forms of bills of lading cannot be interchanged.

Show Routing on Bill of Lading.—Under the law, shippers now have the right to route their goods; and the routing should be specified in the marked space and not somewhere else. A few instances are cited to show the importance of inserting it in the bill of lading.

In one case a shipping clerk put his routing near the bottom of the bill of lading, specifying the Flatbush Avenue station in Brooklyn as the terminal delivery

point. The carrier saw the destination "Brooklyn" in the proper place, but no specified routing or delivery instructions in the space provided for them, and delivered the car to the Brooklyn Eastern district terminal. This meant heavy trucking charges for the consignee. Later, however, with the aid of the contracting agent, it was arranged to deliver the car at the Flatbush Avenue station, but it meant a long extra haul for the carrier and an annoying delay in delivery—the fault of shipper and clerk.

Routing of Utmost Importance.—Innumerable instances might be given of the importance of knowing how to route and of correctly and clearly stating the routing in the shipping order or bill of lading. In the Chicago switching district, a concern may be served by two roads, the facilities and situation of one permitting it to absorb or include in the through rate a switching charge, while the other road must charge for the switching in addition to the through rate. A study of the tariff and of a shipper's or consignee's location will reveal the facts or necessities in any particular case. Again, one road reaching a consignee may have a large power-crane next to the team-tracks for unloading heavy machinery, while the other road may not have one. These unloading facilities should influence the routing even though the rate for the haul via the other line may be a bit lower.

A shipment of dressed poultry comes from the west unrouted and the rates over two or more routes are alike, but the tariffs of one road and its connections allow the privilege of storage in transit. If the carrier sends this unrouted shipment over one route and shipper later finds that the other would have been more suitable, the carrier is in no way liable.

Use of Differential Lines in Routing.—Circumstances frequently permit a saving by using one of the differential lines to the west. From New York to St. Louis, ten cents per hundred pounds on the first class rate can be saved by routing Old Dominion Line via Norfolk, and Norfolk and Western Dispatch routes, instead of the standard all-rail lines. Marine insurance

is included in the rate, as is provided in the tariffs where rates are based on either the Ohio River crossings or Virginia cities. Both or all points should be figured for the shipment in question, one class may be lower by one route and another class higher by that same route.

Effort should be made also so to route the shipment as to get a through car for less-than-car-load shipments wherever possible, and to avoid too many transfers (which are of several kinds) beyond a break-bulk point. It makes for quicker service and reduces the chances of loss and injury from hauling.

A shipper should assure himself that there is proper tariff and authority for a particular route and rate before trying to use them; and if necessary, often the better part of wisdom is to ask the railroad's agent who must look up the matter.

In describing the goods, the shipper should carefully examine and be familiar with the classifications and exceptions applicable; references to notes and any commodity tariffs that may apply. For instance, if he write "electrical fixtures," he pays a first class rate; but if they are "electrical fixtures for lighting purposes" the official classification provides a second class rate. A common mistake is in billing "cases of merchandise" or dry goods, which take first class rates, when a cotton piece goods in less than car-load lots take fifteen per cent below second class.

Reducing the Rate By Classification.—Suppose a man is shipping extension tables knocked down, from Southern Michigan to a Colorado point and no through rates are in effect. The official classification provides nothing about extension tables but provides a second class rate for "tables K. D." in less than car-load shipments; the western classification provides the same, but also names a third class rate for the extension tables, K. D. Therefore, by billing as "extension tables K. D." he would gain nothing in the official territory, but he would pay a third, instead of second, class rate in western territory, constituting by far the longest part of the haul. Further, by using a Chicago

combination of rates instead of a combination on a Mississippi river crossing, he would bring the western classification into play sooner and so receive the benefit of the third class rate for a greater proportion of the total haul. Between many points special low commodity rates are in effect on many articles—iron and steel for instance. Look for them and see whether you can bring yourself within the description given.

Bear in mind that railroad clerks bill shipments from the descriptions given by shippers. They do not see the goods or cases and even though they may be packed to comply with the requirements of the classifications to entitle them to lowest rates, they may be charged a higher one because of failure fully and carefully to describe and route them. Nor can railroad clerks advise everyone fully and correctly. Twenty-five thousand different articles are shipped daily in this country, and 500 to 1,000 tariff changes are filed with the commission every day.

Do not use trade names. No analogy in description is allowed in the use of a special or commodity rate; but care should be taken to see whether if one is in effect the case can be brought within its exact language to permit its application and use. First determine whether such a rate is in effect before using a class rate or an exception to it.

Car-load Lots.—Grain, fruit and oils in tank cars are carried at estimated weights. The bill of lading for a car-load of grain will give so many bushels, but the shipment is charged at so many pounds per bushel, varying according to kind and state from which shipped. Fruit is estimated at a certain weight according to certain standard sizes of cases; and the cases are counted. In general, oil in tank cars, unless a specific tariff gives a minimum weight, is estimated at so many pounds per gallon and the minimum weight governed by the liquid capacity of the car.

In the case of furniture, bath-tubs, carriages and products which are light in comparison to the space taken up in cars, the minimum weights increase with the size of the car. On a minimum of twelve thousand

pounds for bath-tubs for a thirty-six foot, six inch car, the weight charged for increases to thirteen thousand four hundred and forty pounds for a forty foot, six inch car. For a car over forty-two feet six inches and not over forty-six feet six inches, the minimum would be seventeen thousand and forty pounds. Hence the importance of not paying for a car larger than required. Carefully estimate your needs, and order accordingly.

One important function of the bill of lading is to define the contract and conditions of carriage. What constitutes delivery and a completion of the contract by the carrier varies in different states, and what would amount to due care in trying to deliver in one case, would not in another case in the same state.

TRADE-MARKS AND WHAT TO AVOID WHEN SELECTING ONE

In these days when advertising plays an all-important part in business, when the man who makes himself heard and becomes known is the one who gets ahead, it is natural that practically every commodity on the market should have a distinctive trademark. For trademarks are the only means of protecting the results of advertising and enterprise from the unscrupulous hordes of "imitators."

Although it seems inconceivable that business could be carried on without such protection, as a matter of fact, the law relating to trademarks is of comparatively recent development. Recently there has been a great mass of litigation covering this important phase of business, and the courts have passed upon trademarks for almost everything.

Relief by Injunction.—The action for damages gradually gave way to the much more adequate relief by injunction for two very good reasons. First, because of the difficulty of proving damages caused by the infringement. Second, because of the sad fact that imitators, as

a class, are not persons of great financial responsibility, and judgments for damages against them are generally so much waste paper. Nowadays the infringer is served with a temporary injunction pending the suit, and with a permanent judgment after the case has been tried. Then, if he feels unable to give up his newly acquired business, he finds himself in jail for contempt of court. In addition to all this punishment, the court will give a money judgment for such damages as can be shown by the injured party.

What is a Trademark?—Viewed through the learned spectacles of the law, a trade mark assumes a complicated aspect. It has been defined as “a name or a device or a peculiar arrangement of words, lines or figures, or any peculiar mark or symbol, adopted and used by a manufacturer or a merchant for whom goods may be manufactured, to designate them as those which he manufactures or sells. It may be put either upon the article itself, or on its case, covering or wrapper.” Although this definition does not sound formidable, the close cases which arise under this branch of law, as under every other, make necessary certain general rules which business men should know. Some confusion exists in the popular mind concerning the relation to each other of trademarks, patents and copyrights, but, of course, each is entirely distinct from the other. Trademarks, unlike patents and copyrights, are not limited in their duration, but once acquired, continue to be the property of their originators as long as they may choose to use them.

What the Law Requires.—The law requires that a trademark shall be something new; that is, the mark, design or device of the trademark must not have been in common use to designate articles of a similar nature. A trademark must also be exclusive; that is, it cannot be used by two or more persons or corporations at the same time. It must be attached to the article in some way. It may be printed, stamped or pasted on the article, or its wrapper, case, bottle or cover. It may be on a tag, a label, or even on a stick on which the goods are rolled, but it must accompany the article in some way when sold. No amount of advertising a trademark

will suffice to protect the owner, unless the purchaser finds the mark actually attached to the article.

Mere Description is Not a Trademark.—The main difficulty in picking out a good trademark lies in the fact that it cannot consist alone of words which are purely descriptive of the article. The reason for this is that others who have a right to sell the same article have also the right to describe it in the same way. This rule is strictly adhered to by the courts, more strictly in many cases than common sense warrants.

For instance, it would hardly seem that the person who adopted this jaw-breaking title, "Ammoniated Bone Super-phosphate of Lime," for a fertilizer, would either rob his neighbors of a phrase they might wish to use, or sell enough of the stuff to litigate about. But it is a fact that such a trademark was held invalid because it presumably only described the fertilizer. Even the refined word "Dessicated," when applied to the sacred New England codfish, will not do alone as a trademark, since a good dictionary shows it to be descriptive of a process which anyone else might adopt. The courts go so far as to hold that words borrowed from foreign languages will not do as trademarks if, when translated, they merely describe the article. One would certainly think that the original introducer of "Parcheesi" had hit upon a capital trademark but, since the word is Hindustanee for a game in India, and since others have the right to make and sell the same game under its real name, this trademark has been held invalid. Some of these cases are very close and depend largely upon the "personal equation" seated upon the bench. Dr. Dadirlian, the originator of "Matzoon," which is the Armenian name for buttermilk fermented by a special process, lost his case against an imitator in the federal courts in New York City on the ground that the word, translated, was merely descriptive, while in the New York State Courts, sitting on the other side of City Hall Park from the federal court, it was held that "Matzoon" was a perfectly valid trademark.

Geographical and Proper Names Invalid.—Geographical names, too, are not advisable, because those who man-

ufacture in the same place may use the same name. For this reason the manufacturer of "Chicago Waists" was held to have no trademark in this name as against another manufacturer of waists in Chicago. Another sort of trademark which is not always entirely satisfactory is one which depends upon a proper name. Any other person with the same name may decide to enter the business of making and selling a similar article under the same name. If a proper name does appear in the trademark, there should be additional words, designs or figures which another person will not be allowed to imitate.

A Trademark Must Be Truthful.—An important requirement of a trademark is that it shall be truthful. No court will protect from others a man who is himself engaged in deceiving the public. On this ground many trademarks of "patent" medicines have been held invalid because of the miracles enumerated on the label or wrapper. Other trademarks have failed to get protection because they state or imply that the article is manufactured in some place or country other than the real place of manufacture. All these "Made in Germany" and "Bottled in England" additions to trademarks render the whole invalid if the statement is not substantially true. Other trademarks are worthless because they state that the article is patented, when it has never been patented or when the patent has expired. The word "patented," however, if the dates of the patent are also given, never invalidates a trademark because everyone is supposed to know that a patent expires in seventeen years.

Fanciful Name Best.—A fanciful name furnishes the best basis for a trademark, as it does not serve simply to describe the article, as: "Uneeda" Biscuit, "Eureka" Mowers, "Appolinaris" Water, "Moxie" Nerve Tonic, "Queen Quality" Shoes, "Royal" Baking Powder, "King Arthur" Flour, "Old Crow" Whiskey, "Sealpackerchief" Handkerchiefs, "Omega" Oil. "Coal Oil Johnny's Petroleum Soap" is also a valid trademark. There is the use of labels, marks and names precisely similar to the original. This is because imitators in general have a

notion that such a practice brings them nearer to a criminal prosecution than the safer "accidental" sort of imitation. Also, for the same reason, infringement by the use of the original trademarked packages, cases or bottles for substituted goods is rare. The favorite method consists of adopting a trademark so similar in appearance to one which has been thoroughly advertised and is "taking well" with the public, as to deceive an unsuspecting purchaser and yet show differences enough, upon close inspection, "to argue about in court," as one judge has put it.

A Court Decision.—Judge Lacombe, of the United States Circuit Court in New York, who has done as much, probably, as any other judge in the country to enforce the law against this sort of business piracy, has summed up the whole situation in an interesting opinion in the Uneeda Biscuit case which is worth reading. Defendants present the usual voluminous bundle of affidavits by persons in the trade to the effect that in their opinion no one is likely to mistake defendant's biscuits for complainant's. As has often been pointed out before, it makes no difference that dealers in the article are not deceived. No one expects that they will be. It is probably the experience of the consumer that the court considers. Here, too, we have the manufacturer of the article complained of, who explains, as usual, that in adopting a trademark by which to identify his own product, he has been most careful not to trespass on any rights of complainant, and that, after considerable thought, he selected a name which should make the difference between his goods and complainant's distinct and plain, so that there could be no possibility of mistake.

Names Used to Mislead.—"It is a curious fact," continues Judge Lacombe, "that many manufacturers of proprietary articles, when confronted with some well-advertised trademark or mark of a rival manufacturer, seem to find their inventive facilities so singularly irresponsible to their efforts to differentiate. Thus, in one case, the words 'Cottolo' and 'Mongolia' seemed to another defendant entirely unlike 'Magnolia.' The manu-

facturer of the article which defendants in the case at bar are selling, seems to have had no better luck, for, with the word 'Uneeda' before him, his device to avoid confusion was the adoption of the word 'Iwanta.' There are, as also is usual, a number of minor differences between the forms and the dress of the two packages, but no one can look at both packages without perceiving that there are strong resemblances, which could easily have been avoided had there been an honest effort to give defendant's goods a distinctive dress. Both name and dress are clearly calculated to mislead, and the statements that both were adopted with an eye to differentiation, strain the credulity of the court beyond the breaking point."

Similarity in Sound Illegal.—Sometimes imitators conceive the bright but illegal idea of adopting a name having exactly the same sound but spelled differently. For instance, the manufacturer of "Yused" gas mantles discovered a competitor selling under the name of "U. C. A." gas mantles and soon ruined the latter's business by an injunction. Nor is it necessary that all the words of a trademark be imitated in order to obtain an injunction. It may be enough if the same sort of idea is suggested by the imitation, so that a tailoring firm doing business as the "Six Little Tailors" was protected by the courts against the "Six Big Tailors."

The following imitations were condemned without hesitation:

Cascarets—Castorets,
Appolinaris—Appollinis,
Honeymoon—Honeycomb,
Moxie—Noxie,
Serosis—Sartoris.

On the other hand, it is no infringement to employ a trademark similar to one in use upon an article entirely different and used for different purposes. In such cases the public cannot be misled. So the proprietor of "Rough on Rats," which he claimed would also exterminate other vermin than the name implies, lost a suit

against the manufacturer of "Rough on Skeeters," which was not claimed to be fatal to rats or other vermin in general.

Validity of Present Law Is Questionable.—Congress has passed several acts and amendments providing for the registration of trademarks, but since the Federal Constitution gives no express power of legislation upon this subject, and since the overworked "commerce" clause of the Constitution can hardly be stretched to such an extent, lawyers in general and several judges have expressed doubts as to the validity of even the present act. The earlier provisions were all declared unconstitutional by the United States Supreme Court. This question fortunately is not a matter of life and death for the business man, because substantially the same protection, although perhaps less conveniently, can be obtained in the state courts under the state laws now in force, in case the Federal Registration Act should be declared void. In many states there are statutes protecting trademarks, some of them providing for criminal prosecution in addition to the unusual civil remedies; but entirely apart from all statutes, the courts give protection as a matter of necessity. All of which emphasizes the force of the advice: "Get a good trademark, get it first, advertise it, and hold on to it."

WHY SOME TRADE NAMES ARE MEANINGLESS SOUTH OF PANAMA

Two principles should be observed at all hazards by the advertiser in Latin-American countries; and these principles can be violated by him only at great cost: (1) the chance of the foreigners being able to pronounce the trade name; and (2) the significance of it in the language used.

Trade Names Often Meaningless to Foreigners.—In the pursuit of foreign trade the advertiser must be doubly careful in the use of unusual word formations of this sort; for, while they may be significant and

harmonious in our own language, the chances are ten to one they will be meaningless and unpronounceable abroad—factors that arouse at once a very tangible hostility. It is entirely possible for a manufacturer to be greatly handicapped by the trade names he uses abroad.

Conservatism in language formation is much more marked in the countries where the new Latin languages are spoken than here, since none of these languages lend themselves readily to word compounding. Nor do those who speak them admire misspelling or accept snap coinage easily, factors which sometimes form no small part of the advertiser's ammunition in the United States. Our attitude, "a slogan at any price," is hardly understood by the foreigner.

Name Must Be Easy to Pronounce.—The principle that the name or catchword must be easily pronounced permits of no appeal. You may conceivably sell *Cliquot* (pronounced Klee-koh) Buttermilk in English, if you include the pronunciation in parantheses. Of course, when you ask for the article the clerk does not understand you and will finally say, "Oh, yes, you mean *Clikkut* Buttermilk." Still, you have the satisfaction of knowing that you pronounced according to *Hoyle*, which is no small satisfaction. The foreigner, however, and the Latin-American least of all, is not so daring. He will hesitate a long time before he asks for a "Sweepemgood Broom," in spite of the explanation in parentheses: "pronounced *Suipamgad Brum*." He will be more likely to content himself with your competitor's, perhaps inferior article, simply because it is called merely "escoba."

A Comparison That Illustrates.—Imagine yourself asking for a can of *Przemsyl Patent Pancake*, even in English—or a pair of *Ypres Walking Shoes*. The second article, indeed, you might possibly get by asking for "Wipers Shoes," using the pronunciation that was finally adopted by the British tommies. To carry the comparison further, what would you think of a

delicatessen shop which tried to carry Pommedeterre Chips? The name is not meaningless; it is simply unpronounceable to us, and we will not freely go into a store and ask for the article.

Some Examples.—A few examples of errors in judgment on the part of American advertisers will be helpful. For example, a caption for a certain advertisement runs something like this: "The Waterloo-Boy Plow es el mejor." How can a Spaniard approach the name of this article—much less consider saying it—when he has not even the letter "W" or the sound it represents to us? Another advertiser offers for South American trade, "Muebles Gold Marker." How could a Spaniard or Brazilian attempt the pronounciation of a combination like the "ldm" which appears in the name. Still another advertiser wishes to sell "Pamparas Standard" in defiance of the fact that no Latin-American was ever born who could easily pronounce any word beginning with "st"—to say nothing of "rd" at the end. The Spaniard, when he has such a word to pronounce, will invariably prefix it with the letter "e," after which he is able to make something of it. Examples might be multiplied indefinitely. But these are sufficient to show that the first principle is that the catchword, if used at all, should at least be pronounceable.

Trade Name Must Convey a Meaning.—An essential by no means second in importance to that just mentioned is understandability. Even though you have succeeded in getting a trade name which can be pronounced, it will be of doubtful advantage if it says nothing to the mind of the prospective purchaser. In far too many instances, both principles here treated have been violated at the same time by the foreign trade seeker. Do not forget that old familiar trade names like Gold Award, Tip-Top, Peerless and numberless others, awake no answering chord in the Spanish-American heart; nor do many other specific trade names which have won recognition in our domestic trade. For example, Italian-Kid Varnishes may be, of

course, well known, and the name means something to us. To try to take advantage of the name "Italian-Kid," however, when selling the South American trade, might be a mistake. Even though you accompany your trade name of "Italian-Kid" with a properly dressed child applying varnish, the Latin-American will never see what the picture has to do with the name, nor the name with the article.

Alphabet Combination Worthless.—Again, alphabet combinations taken from English words are worse than useless—they are unsolvable enigmas to the Latin-American. For example, you will probably be able to sell the American purchaser your deodorizer and disinfectant under the title B. D.—he may come to learn, after a while, that B. D. means *Bacillus Death*. But to expect a Brazilian to admire and learn the title and its application is asking too much. For him, death begins with an "m," not a "d." "Baby Grand," too, has certain associations in American life which makes the name a selling asset for certain articles. But if you tried to sell a Chilean a "Baby Grand Refrigerator," he would certainly think it meant "Large Baby Refrigerator," whatever that might be.

Unpronounceable Trade Names of no Value.—"Shine-up Face Soap" or "Shino-Jewelry Cleaner" might sell in an American market. The names mean something to us, but what significance can the names have for a Latin American? He could not pronounce the names, in spite of instructions, as he has no "sh." What can such names as Hot Pointo Knitting Needle, Tyredope, Leaknot Shoes and the like, hope for from the Latin-tongued purchaser? These, like many of our trade names, have the disadvantage of being unpronounceable when we try to introduce them bodily in Latin-American selling campaigns.

The Safe Rule to Follow.—The safest rule for the American exporter to follow is always to consider himself in the position of the man he is trying to sell to. What names will appeal to this man? What names are boldly—and boldly on the face of them—unpro-

nounceable or not to be understood by him? An American manufacturer of electrical appliances for the home entered the South American field with names for his products which could carry no meaning whatever to the South American mind. He called his broiler *El Broillo*, his meat roaster *El Roasto*, his electric toaster *El Toasto*. The same was true all through his line, and naturally he had a big handicap to overcome in educating his prospective customers to understand what his products were for.

How to Select Trade Names.—What, then, shall the advertiser permit himself along the line which has proved profitable in his own language? The procedure need not be materially different. Probably the principle which actuated Don Quixote in his search for a name for his trusty steed leaves little to be desired by the American manufacturer who is on the point of making his selection of a name for his product—it should be dignified, harmonious and significant. The first point, dignity, takes care of itself. Imagine selling something like "*Rag-Time Silverware!*" When possible, both the remaining points should be borne in mind also; but in any case the word should conform to the genius of the language of the country where it is to be used. That is to say, it should be pronounceable, and should sound as if it might properly belong in the language if a place were made for it.

To illustrate: *Tico Teas* might possibly succeed as a trade name, because *Tico* permits of naturalization in any of the Latin countries. Conversely, "*Wearemwel Clothes*" would be impossible, and for the converse reason. So also "*Koleyard Fastblack Dyes*" would never do.

Examples of Good Names.—There are, however, plenty of stock words which belong to Spanish which are both significant, dignified, and, of course, pronounceable. For example, replace "*Gold Marker*" by "*Premio de Oro*;" instead of "*Peerless*," use "*Superior*" or "*Sin Igual*." "*Nacional*" is almost as good an epithet in Spanish as its counterpart is in English; even "*Koh-*

l-noor" is as Spanish as English, and is both significant and pronounceable. If the advertiser wishes to sell "House Illuminating Systems," he would do better to sell something like "Sistema de Alumbrado Sol," even "Solar" rather than the "Aerlite System."

The advertiser should reconcile himself to throwing overboard to a considerable extent the advertising technique which belongs peculiarly to his own language. In not all cases, perhaps, can perfection be obtained. Still, let him sell rather than the "Smith Wares" than the "Smith-Oshkosh Wares;" let him be content with selling simply "Ropa Interior de Verano Smith," rather than the "Smith Keepkold Underwear." Instead of selling the "Sheboygan President Suspenders," let him announce merely, "Tirantes Presidente"—Sheboygan has no meaning for the buyer south of Panama.

Make the Name Easy to Use.—The advertiser ought to keep in mind the fact that names serve in the same way as handles on the articles we use in daily life. A good name is convenient to use in talking about any article, just as a properly-placed handle helps in holding a coffee pot. To foist an unpronounceable and unintelligible name on a perfectly good article would not be unlike putting the handle on the bottom of the coffee pot, where it would serve no purpose and would prevent the coffee pot from standing on its own base.

Trade Names Like Foreign Exchange.—The South American is particularly liable to resent any liberties taken with his language, and he does not care for or understand the intentional cases of misspelling and far-fetched names which may often have proved excellent trade names for the manufacturer in his home markets.

So, let the manufacturer remember that to sell goods which originate with English trade names is a good deal like paying in foreign money. The value of the medium of exchange or communication must be reduced to understandable and current values of the foreign market before it will be accepted.

ARE YOU BORROWING AT THE RIGHT PRICE?

Borrowing sometimes appears simple. Variations in rates and terms seem trivial. Borrowing often appears, in fact, to be one of the jobs a manager can handle more or less offhand. But the fact is that often a prime requirement of the heads of big corporations is ability to raise money on good terms; and they study this problem month in and month out, with the expert counsel of bankers and paper brokers.

Stock Quotation an Index.—Actual prices of goods to different buyers are some things which the manufacturer and jobber in many lines usually do not talk about. But the quotations on stocks and bonds give the business man from day to day a helpful record of the prices and terms investors are willing to give enterprises that are buying funds. In these quotations are reflected not only the profit chances of the business, but money supply and demand, and the psychological influences that are so important in the money market. If the business man can explain these delicate fluctuations from day to day he may better understand what his business must do to enjoy high credit and low terms.

The business man does well to remember that people who sell money and buy investments have as many tastes as people who buy shoes or neckties. The United States Government buys money at low rates because it sells its bonds to the investor who does not want any bother, any uncertainty, any speculation; who will not be troubled with a security that is taxable or that is difficult to sell at any time or place.

Risk Often Determines Rate.—At the other extreme is the man who wishes to raise money for an unestablished oil or mining enterprise, or who exploits a patent of undetermined value. He unfortunately has found by experience that he usually must go to the inexperienced and financially ignorant whom he can influence by promising a huge slice of whatever profits

he is able to earn. He offers to pay this price because there is nothing in sight which he can pledge to the investor as security for his money and because should the investor need his money he will find it difficult to sell out on short notice.

Between these extremes are business men of all sorts getting money on various terms. Every one of them has certain financial selling points; sure and conservative interest, chances to share profits, freedom from personal supervision of funds. There are certain disadvantages, too, which apply to everyone's method of investment—some degree of risk, some formalities the investor will have to go through and pay for, some difficulty in insuring the investor the recovery of his money on short notice.

Factors That Determine Rate.—Every business man, in other words, when he goes to the bank, or when he raises money in more permanent ways, as by note, mortgage, stock or bond, has certain advantages in return for which investors will let their money go at lower rates; and certain disadvantages to compensate for which investors add a percentage to the return they hope to exact. There are dozens of these points which affect the price of capital for different purposes, but they may be divided under four main heads:

1. Actual property which the lender or stockholder may consider as security for his funds.

2. Chances of loss and gain which borrower or lender assumes. The character of the borrower is an important aid in estimating these balances.

3. Current conditions of supply and demand in the money market.

4. What part of the detail and expense of the transaction and the care of the funds is assumed by the borrower and what remains with the investor.

The Security.—First of all, a business man who goes into the money market has to consider how much actual property he puts up as security or in exchange for a share of stock in his corporation. The man who can almost absolutely guarantee the return of principal and

the payment of interest is in a position to buy funds at a flat rate of interest for whatever period he needs it. He does not need to bid on the finer points of finance. "Is this value on which you base your borrowings safeguarded, insured and replaced as depreciation occurs?" is one of the first questions which the lender will ask. We have all seen neglect to build up a surplus increase the price of funds to a corporation. So a mine or a lumber tract, which obviously loses value as it is worked, must bid higher for funds or lay by a reserve.

Assets and liabilities which are intangible often affect the credit of a company as much as assets in real estate and goods. A water right, a franchise, a right-of-way, a monopoly of certain customers, a title to property with a strategic value, the possession of favorable contracts—any of these may enable the company to push down the rate of interest it has to pay.

Conservative Investors.—To have a good organization enables a concern to finance more cheaply. Investing with success is worth something to the investor and he is ready to pay for this insurance by accepting a lower rate. If the business man is on the wrong side of restrictive contracts or in hot competition, he may have to pay more to attract capital.

The company that enjoys the good-will of its employees and public and the government can usually get money at lower rates than the one that is in danger of being put to the expense of industrial or legal war. Some business ventures carry a certain social prestige which some investors accept as an asset; of others the opposite is true. Certain perquisites in rank attract men to make investments in some concerns, and investors are sometimes willing to buy stock with a low yield because of the "inside" chances they thus secure to purchase other investments that promise rich returns.

The Business Risk.—Business risk is a matter that allows plenty of chances for guesswork. One man's guess is frequently a great deal better than another's, however. The effect of business risk on interest rates varies with the class of investor and the amount of information he has.

BOOK IV

BUSINESS TABLES

BASING A SALES CAMPAIGN ON FACTS.

Sales managers are finding it increasingly difficult to sit in a little office and plan out sales campaigns for a country three thousand miles broad, in which every class of people, every climate and every degree of weather and occupation are presented. One must have specific facts on which to base his campaign. The sales manager cannot rely upon his personal estimates and upon rule-of-thumb computations. He has been forced to find better and more efficient means of knowing what is going on. He must gather together facts and figures from representatives in the field; he must tabulate these data; and he must employ trained men who act in accordance with his plans.

Today business men recognize that it does not do to mix jobs; that a salesman should be put on the road to sell, and that when investigation work is necessary, it should be undertaken by special investigators, whose task it is to investigate and nothing else. They can do the work at much less cost. Often the actual time that the high-grade salesman is really in action is surprisingly small when it is carefully computed. So the sales manager sends research men to make standardized reports on conditions, dealers' needs and attitudes, and competition as indicated in the table below.

FIELD INVESTIGATION FOR SALES CAMPAIGN.

I. ANALYSIS OF LOCAL CONDITIONS.

1. What class of people live in this locality and what is their source of income? (Rich, medium or poor.)
2. What important industries are located here?

3. Are people here mail-order buyers?
4. What is the number of rural free delivery routes?
5. Do housewives ask for articles in our line by name or trademark?
6. What kind of advertising is most successful locally—an offer of "something for nothing;" seasonable articles; bargains; price displays?
7. Is our product most in demand? Name competitive articles sold in order of preference.
8. Do local dealers make good window trims, store arrangements, or have special features to attract crowds?
9. Do surrounding crop conditions affect local business? If so, report on crops.
10. What prices are competitors making to local dealers?
11. What local advertising is done by competitors?
12. What is the total number of dealers who sell our class of products?
13. How many sell our goods?
14. Estimate the approximate annual consumption of our class of goods locally.

II. ATTITUDE OF DEALER TOWARD ADVERTISED GOODS.

1. What trade papers does he subscribe to?
2. Which paper does he prefer, and why?
3. Does he read trade paper advertising?
4. What general magazines does he subscribe to?
5. Does he read advertisements?
6. Does he order as a result of trade paper or magazine advertising?
7. Has he ever advertised, and how? Secure copies of his ads.
8. Has he a mailing list which he circularizes regularly?
9. Does he do any window-trimming and how?
10. Does he read the advertising literature he receives?
11. Does he give preference to trademarked goods?
12. What does he do to cooperate with advertisers?

13. Does he believe in advertising, or look on it as a tax?
14. How does he feel toward advertisers who sell catalog houses?

III. THE DEALER'S PRACTICE.

1. What is his attitude on Parcel Post?
2. What is he doing to meet catalog house competition?
3. What is the average number of letters and circulars he receives daily?
4. How many clerks does he employ, and what does he pay them? Does he take time to educate them in salesmanship?
5. Does he work up sales schemes to increase business?
6. What class of people does he sell—rich, poor or medium?
7. What kind of location has he?
8. Is the store well kept, stock attractively arranged? Does he mark his goods in plain prices or blind figures?
9. What does his stock amount to?
10. How much in our lines does he carry?
11. How often does he take inventory? Does he have special sales for closing out stock, and how often?
12. Does he maintain prices, or is he known locally as a price cutter?
13. Does he prefer buying from jobber or manufacturer?
14. What percentage of profit does he require, and what is his cost of doing business?
15. Has he a delivery system? How much business does he do by mail or telephone?
16. Does he prefer giving orders to a representative or mailing them to the house?
17. How often do salesmen in our line call? How often does he see our salesmen? What comments does he offer on our representative?
18. Does he prefer an F. O. B. price?

IV. ATTITUDE OF DEALER TOWARD OUR PRODUCTS.

1. How long has he handled our line?
2. Is he satisfied with treatment received?
3. What is his opinion of our products, as compared with similar goods?
4. Is his profit on our goods as much as on other goods he handles?
5. As much as on competitive lines?
6. What class of trade does he sell our goods to—rich, medium, or poor, or any specific class (like professional persons, etc.)?
7. What talking points does he use in selling our goods?
8. Are our goods best sellers for him? Name competitive lines he carries in order of demand.
9. Does he push our goods in preference to others? What goods does he boost?
10. What is his opinion of our advertising?
11. What are his recommendations?
12. Does he cooperate by displaying our advertising material?
13. Is he willing to do any local advertising?
14. What cooperation is he receiving from our competitors?
15. Is his demand for our class of products decreasing or increasing?
16. Why?
17. Has he ever sold our goods, and later dropped them? Why?

THE ESSENTIALS OF MARKET CLASSIFICATION.

To get maximum results with minimum effort classification of markets is one of the prime essentials for success in many enterprises. The methods of classification for realty shown in the table on the following page point the way to their adaptation in other fields. The prospects are classified as direct and indirect.

**CLASSIFIED MARKETS FOR REAL ESTATE
OFFERINGS.****DIRECT MARKETS.****Property Buyers.****A. Direct Inquiries**

1. For Direct Occupancy.
Business; Factory; Homes: City, Suburban, Estates, Farms.
Sites for any of above occupancies: Lots; Acres.
2. For Investment.
Improved income-property of all kinds.
Lots for investment improvements.
3. For Speculation.
Lots; Acreage; Improved property where income does not put it in investment class.
4. For Operation.
Lots; Acreage.
5. For Development.
Acreage (country); Industrial tracts; Railroad tracts; Waterfronts.
6. For important leaseholders who might be converted to buying the property or a similar one.

B. Names Obtained Indirectly.

1. Those known to have a surplus and who already have invested in some sort of real estate other than a home.
2. Operators, operating and speculative builders, developers.
3. Those who like to form syndicates.
4. Attorneys for estates interested in investments.
5. All those affected by change of occupancy, undesirable encroachments, legal restrictions or other factors which may lead them to want to move from one neighborhood to another.
6. Those connected with business contemplating a move into new territory and who probably are interested in business property or more conveniently located homes.

1. Those whose growing business may put them in the market for better, larger or more advantageously located or cost reducing property.
8. Those whom successful business raises to a new standard of living.
9. Neighboring owners who may be interested in increasing plottage or protecting their holdings.

Mortgage Buyers.

- A. Those known to like mortgages and having ready money to lend.
- B. Those who hold mortgages already.
- C. Corporations which lend money on mortgages.
- D. Attorneys, trustees, agents, and so on, who lend on mortgage.
- E. People who recently have gained surpluses and who should be looking for conservative outlets for spare cash.

Renting Prospects.

- A. Lessees who pay big rents for business or domestic quarters whose leases are known to expire at given dates when they may be open for new propositions.
- B. Lessees in a neighborhood undergoing a change of occupancy.
- C. High class tenants or owners in deteriorating neighborhoods—as when a select residential district changes into stores.
- D. People compelled to move because of new legal restrictions, ordinances, and so on.
- E. All those whom change of fortune raises to a new standard of living.
- F. Owners of prosperous new businesses.

INDIRECT MARKETS.

This market is defined largely by financial ability to buy, and the absence of any known objection to real estate, but no positive information as to need, desire or preference on the indirect prospect's part. This, therefore, is a much less promising field for direct or

personal promotion, and direct mail attacks do not promise very high returns. There are the following classes:

- A. People of means whose real estate tendencies cannot be definitely catalogued but who are not so hide-bound to other forms of investment as not to be open to conviction as to the merit of real estate.
- B. Those who pay high rents for apartments or dwellings and who, therefore, are able to own their own homes.
- C. All flat dwellers with children who are paying over \$45 a month rent and who, therefore, could finance a suburban home on an easy payment system.

Note.—A large number of names would be eligible for such lists and it is very easy to gather too many. Admission should depend on knowing several facts about each individual, each useful for a direct approach.

HOLDING RETAIL TRADE.

Whatever helps the retailer helps himself, is the view of the wise manufacturer today. He realizes that it is cheaper in the end to develop permanent, enthusiastic, well-trained dealers than to constantly expend money and energy in securing new dealers. The following table presents the wants of the retail merchant, the satisfaction of which means increased profits to the manufacturer.

THE WANTS OF THE RETAIL MERCHANT.

IN GOODS	IN SERVICE
Uniform Quality	Prompt Deliveries
Guaranteed	Privilege of Making
Sound Values	Small Orders
Individuality or	Protection Against
Medium Prices	Overstocking
A Fair Margin	Helps in Selling
of Profit	and Advertising

SOURCES FOR BUILDING A MAILING LIST.

Business success is often dependent upon the securing of a "live" mailing list and keeping it level with present conditions. Certainly it is most important in working out a direct campaign. The following table shows the sources open to the average business in a small city:

I. General list from

- (1) Prospects attracted into the bank through
 - (a) Register for visitors.
 - (b) Register for guessing contest.
 - (c) Inquiries for novelties.
 - (d) Suggestions from customers.
 - (e) Post cards inviting inquiry.
- (2) Through directories such as city and telephone.
- (3) Miscellaneous sources such as
 - (a) Newspapers.
 - (b) Lists of delegates at conventions.
 - (c) Gas and electric company customers.
 - (d) Lists from lawyers, doctors and dentists.

II. Class list of

- (1) Women from
 - (a) Women's club memberships.
 - (b) City directory.
 - (c) Church organization membership.
- (2) Children from
 - (a) Registration for essay contest.
 - (b) Records of superintendents of schools.
 - (c) School census.
 - (d) Sunday school roll.
- (3) Men from
 - (a) Political polling lists.
 - (b) Factory and store payrolls.
 - (c) Station agents for railroads.
 - (d) Lodge membership roll.
 - (e) Club membership lists.
- (4) Farmers from

- (a) Personal solicitors.
- (b) Agents working in warehouses.
- (c) Registration for contest in growing farm products.
- (d) Membership of farmers' warehouse.
- (e) Rural mail carriers' lists.
- (5) Business men from
 - (a) Factory's list of dealers.
 - (b) Railroad annual of shippers and receivers.
 - (c) Dun's trade review.
- (6) Professional men from
 - (a) State year book.
- (7) Property holders from
 - (a) Probate court records.
 - (b) Personal tax lists.
 - (c) Tax digest.
 - (d) Records of register of deeds.

AVOIDING LOSSES IN RETAIL BANKRUPTCY

Of the retailers who fail in the United States, two in every three go bankrupt because they either lack capital or lack knowledge of the essential things in merchandising. One in five succumbs to chances more or less beyond his control, and only one in seven fails through lack of character. The following table based on study and classification of more than five hundred partial or total collection losses presents an analysis of the causes of retail bankruptcy.

CAUSES OF RETAIL FAILURES.

First Group—The Beginner's Handicaps.

	Percentage of whole number
Lack of capital.....	29.5
Incompetence (including inexperience)	24.0
Unwise credits	4.4

General expense too high.....	3.0
Poor location	2.2
Expansion (branch stores)	2.0
	65.1

Second Group—Factors Threatening Success.

Loss by storm, flood, fire, and so on.....	3.8
Sickness	3.5
Failure of others	2.6
Competition	1.4
Closed out by "sharks".....	1.2
Robbery of store	1.0
Death	.8
Loss on contracts	.8
Undetermined causes	2.9
	18.0

Third Group—When Character Breaks Down.

Fraud	4.0
Neglect of business	4.0
Personal extravagance	4.8
Speculation	2.1
Intemperance	2.0
	16.9

CONDENSING BUSINESS LETTERS. .

About fifteen per cent of the energy spent on an office typewriter is wasted because of the use of formal, lengthy and unnecessary expressions. A business letter aims to convey ideas, and the simplest, shortest and most direct way of doing this is the best way. The two tables below give a list of expressions common to business, that are more forceful when reduced to their shortest terms—in most cases to a single word—and some meaningless idioms that may be elim-

inated altogether. They suggest many similar condensations that will save time to the dictator and stenographer alike.

CHOICE OF WORDS FOR BUSINESS LETTERS.

Long Form

Preferred Form

purchasing agent	<i>buyer</i>
the purchase of	<i>buying</i>
a large number of.....	<i>many</i>
a majority of	<i>most</i>
the sum of \$10,000.....	<i>\$10,000</i>
take into consideration.....	<i>consider</i>
the city of Boston.....	<i>Boston</i>
this has been found to be an en- couragement to good work.....	<i>this encourages good work</i>
extend an invitation.....	<i>invite</i>
enough so that it will do.....	<i>enough to do</i>
due to the fact that.....	<i>because</i>
over and above.....	<i>over (or more than)</i>
in a prudent manner.....	<i>prudently</i>
put in an appearance.....	<i>appear</i>
arrange in alphabetical order.....	<i>alphabet</i>
the twenty-eighth day of July in the year of our Lord one thousand nine hundred and fourteen.....	<i>July 28, 1914</i>
it is often the case that salesmen fail	<i>salesmen often fail</i>
give the boundaries of.....	<i>bound</i>
inclosed herewith please find.....	<i>inclosed</i>
beg to acknowledge.....	<i>acknowledge</i>
beg to advise.....	<i>notify</i>
beg leave to inform.....	<i>inform</i>
I should be pleased to have you call at any time.....	<i>drop in and see me</i>

EXPRESSIONS TO BE AVOIDED IN BUSINESS LETTERS.

Replying to your favor of the 10th instant, would state
In response to your communication, I take the liberty
of stating

Acknowledging the receipt of yours of the 10th ult.

In answer to your inquiries contained in your letter
of the 10th inst. I beg leave to inform you that

Inclosed herewith please find

Trusting that we may be favored with a reply

Assuring you of our interest

Your valued inquiry of recent date

As per your request

The same

The aforesaid

The aforementioned

Referring to your esteemed favor

I have the honor to inscribe myself

Hoping to hear from you

By even mail

The cases were duly shipped as per your instructions
as contained in yours of the 10th instant. Trusting
that they will arrive in good order and that they
will prove entirely satisfactory.

HOW TO CHECK BILLS.

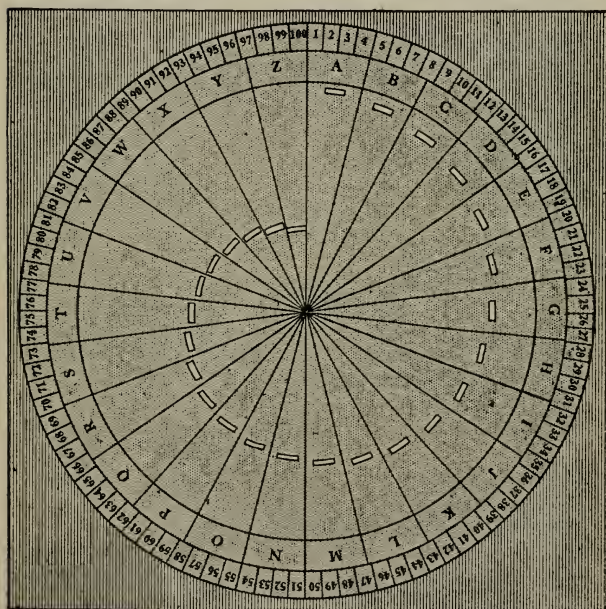
Some business men check bills with the aid of a price-checking book, indexed alphabetically, to enable the clerk to find the page and classification as quickly as possible. If a bill contains fifty items, all of various classifications, it means the turning of the leaves of the books perhaps fifty times, as the items on the bills are arranged promiscuously and not in alphabetical order.

These difficulties may be overcome with the aid of the simple rotary price-checking table on the following page. A duplicate may easily be made. Take a heavy piece of white cardboard about twenty inches square, and mark off a circle about eighteen inches in diameter.

The figures 1 to 100 are written around this circle in carefully and uniformly laid off segments. A lighter piece of white cardboard is cut into a circle eighteen inches in diameter with an eyelet in the exact center. This is mounted on the larger board so that it can be revolved.

ROTARY TABLE FOR CHECKING BILLS.

Around the circular top the letters from A to Z are written in uniformly laid off segments. Below each letter is an oblong opening through which may be seen



four figures. These openings are cut below each other, so as not to interfere.

After these openings were cut, the prices were marked in the following manner: the letter "A" on

the circle was revolved until it was beneath the figure "1," and in the opening below this combination was written the price of "A-1." Then the circle was moved to "2," and in the opening was set down the price of "A-2," and so on. This was carried out in the same manner with the other letters until the chart was completed. The result was a great mass of data spread out correctly on one sheet, necessitating no turning of pages, nor looking up and down columns to find the proper price.

Similar tables can be adapted to many other purposes. For example, buyers of a large commodity in different sizes, such as bar steel, can use such a table to good advantage.

TABLES OF WEIGHTS AND MEASURES

For weighing gold, silver and precious stones.

24 grains make	1 pennyweight
20 pennyweights make	1 ounce.
12 ounces make	1 pound.

The standard Troy pound is the weight of 22.79437 cubic inches of distilled water, and is less than the pound Avoirdupois.

The Troy pound is the one adopted by the mint at Philadelphia and elsewhere, and may be regarded as the standard of weight. The following tables show the formula of Troy weight, and the difference between Troy and Avoirdupois weights:

The Troy pound contains—

5670 grains equal to.....	240 pwt. equal to 12 ounces =
	1 lb. Troy.

480 grains equal to.....	20 pwt. equal to 1 ounce.
--------------------------	---------------------------

24 grains equal to.....	1 pwt.
-------------------------	--------

The difference is shown as follows:

7000	Troy grains make.....	1 pound	Avoirdupois.
437½	Troy grains make.....	1 ounce	Avoirdupois.
175	Troy pounds make.....	144 pounds	Avoirdupois.
	1 Avoirdupois pound makes	1.215278 pounds	Troy.
	1 pound Troy is equal to	1 pint	Wine Measure.
175	Troy ounces make	192 ounces	Avoirdupois.
	1 Troy pound makes	.822857 pounds	Avoirdupois.

AVOIRDUPOIS MEASURE.

The standard Avoirdupois pound is of the weight 27.7015 cubic inches of distilled water weighed in air 39.83°, the barometer at thirty inches; one cubic inch of such water weighs 252.6937 grains, and one cubic foot weighs very nearly 1000 ounces.

All coarse articles of merchandise, such as hay, grain, chandler's ware, and all metals except gold and silver are weighed by this measure.

16 drams make.....	1 ounce.
16 ounces make.....	1 pound.
28 pounds make.....	1 quarter.
100 pounds make.....	1 cwt.
20 hundred weight.....	1 ton net.
112 pounds make.....	1 cwt. gross.
2240 pounds make.....	1 ton gross.
56 pounds make.....	1 firkin.
100 pounds fish.....	1 quintal.
196 pounds make.....	1 bbl. flour.
200 pounds make.....	1 bbl. pork or beef.
14 pounds iron or lead.....	1 stone.
2½ stone make.....	1 bushel.
8 pigs make.....	1 bushel.
62 pounds fine salt.....	1 bushel.
75 pounds common salt.....	1 fother.
85 pounds coarse salt.....	1 pig.
240 pounds =	1 cask lime.
300 pounds =	1 cask cement.
100 pounds make	1 cask of raisins.
1 ounce Avoirdupois equals	18 pwt. 5½ grs. Troy, or 437½ grains.
1 pound Avoirdupois equals	14 ounces 11 pwts. 16 grs. Troy, or 7000 grains.

CIRCULAR MEASURE.

Used in measuring latitude and longitude.

60 seconds make.....	1 minute.
60 minutes make.....	1 degree.
30 degrees make.....	1 sign.
360 degrees make.....	1 circle.

CUBIC OR SOLID MEASURE.

Cubic measure is used for measuring stone, timber, earth, capacity of rooms, ships, and such other things as have length, breadth and thickness.

1728 cubic inches make.....	1 cubic foot.
27 cubic feet make.....	1 cubic yard.
40 cubic feet of round timber.....	1 ton.
50 cubic feet of hewn timber.....	1 ton.
42 solid feet make.....	1 ton of shipping.
8 cord feet or.....	1 cord wood.
128 cubic feet.....	1 cord wood.
24¾ cubic feet of stone make.....	1 perch.

A cord of wood is a pile 4 feet high and 8 feet long.

1 cubic foot makes.....	four-fifths of a bushel.
64 cubic inches (2x4x8) make....	1 brick.
16 cubic feet (2x2x4) make.....	1 cord foot.
128 cubic feet (4x4x8) make.....	1 cord wood.

The weight of anthracite coal per cubic foot varies with the different qualities. Lackawanna coal weighs 48.89 pounds per cubic foot; Lehigh, 55.32 pounds. There are 45.8 cubic feet in a ton of Lackawanna, and 40.5 cubic feet in a ton of Lehigh.

1 ton of 6-inch granite paving will cover	1 superficial yard.
1 ton of 7-inch granite paving will cover	3½ superficial yards.
1 ton of 8-inch granite paving will cover	3 superficial yards.
1 ton of 9-inch granite paving will cover	2½ superficial yards.
1 ton of pebble paving will cover	4 to 4½ superficial yards.
1 ton of rag stone paving will cover	5 to 5½ superficial yards.

SURVEYOR'S SQUARE MEASURE.

625 square links make.....	1 pole.
16 poles make.....	1 square chain
10 square chains make.....	1 acre.
640 acres make.....	1 square mile.
36 square miles (6 miles square) make...	1 township.

FOLDED SHEETS.

Folio, 1 fold, 2 leaves.....	4 pages.
Quarto, 2 folds, 4 leaves....	8 pages.
Octavo, 4 folds, 8 leaves.....	16 pages.
12mo, 6 folds, 12 leaves.....	24 pages.
16mo, 8 folds, 16 leaves.....	32 pages.
18mo, 9 folds, 18 leaves.....	36 pages.
24mo, 12 folds, 24 leaves.....	48 pages.
32mo, 16 folds, 32 leaves.....	64 pages.

SIZE OF SHEETS.

Flat Letter.....	10 x 16
Flat Fools Cap.....	13 x 16
Flat Cap.....	14 x 17
Legal Cap.....	13 x 16
Crown	15 x 19
Double Flat Letter.....	16 x 20
Demy	16 x 21
Double Demy.....	21 x 32
Folio Post.....	17 x 22
Cardboard (allowing $\frac{3}{4}$ inch for trimming).....	22 x 28
Check Folio (Royal).....	19 x 24
Extra Size Folio.....	19 x 23
Double Cap.....	17 x 28
Medium, writing.....	18 x 23
Medium, printing.....	18 x 24
Double Medium.....	23 x 36
Regular Bank.....	19 x 24
Double Royal.....	24 x 38
Super Royal.....	20 x 28
Elephant	23 x 28
Double Elephant.....	27 x 40
Columbier	23 x 34
Imperial	22 x 30
Imperial	22 x 32
Book	24 x 36
Atlas	26 x 38
Antiquarian	31 x 53

The size of the paper used will indicate the dimensions of the folded sheets, Royal, Octavo, Crown, Quarto, Medium, Folio, etc., etc., etc.

DRAWING PAPER—SIZES.

Cap	13	x 16	inches.
Demy	19½	x 15½	inches.
Medium	22	x 18	inches.
Royal	24	x 19	inches.
Super Royal.....	27	x 19	inches.
Elephant	37¾	x 22¼	inches.
Imperial	29	x 21¼	inches.
Columoier	33¾	x 23	inches.
Atlas	33	x 26	inches.
Theorem	34	x 28	inches.
Double Elephant.....	40	x 26	inches.
Antiquarian	52	x 31	inches.
Emperor	40	x 60	inches.
Uncle Sam.....	48	x 120	inches.

STANDARD TIME.

Primarily, for the convenience of the railroads, a standard of time was established by mutual agreement in 1883, by which trains are run and local time regulated. According to this system, the United States, extending from 65° to 125° west longitude, is divided into four time sections, each of 15° of longitude, exactly equivalent to one hour, commencing with the 75th meridian. The first (eastern) section includes all territory between the Atlantic coast and an irregular line drawn from Detroit to Charleston, S. C., the latter being its most southern point. The second (central) section includes all the territory between the last-named line and an irregular line from Bismark, N. D., to the mouth of the Rio Grande. The third (mountain) section includes all territory between the last-named line and nearly the western borders of Idaho, Utah and Arizona. The fourth (Pacific) section covers the rest of the country to the Pacific coast. Standard time is uniform inside each of these sections, and the time of each section differs from that next to it by exactly one hour. Thus at 12 noon in New York City (eastern time), the time at Chicago (central time) is 11 o'clock a. m.; at Denver (mountain time), 10 o'clock a. m., and at San Francisco (Pacific time), 9 o'clock a. m. Standard

time is 16 minutes slower at Boston than true local time, 4 minutes slower at New York, 8 minutes faster at Washington, 19 minutes faster at Charleston, 28 minutes slower at Detroit, 18 minutes faster at Kansas City, 10 minutes slower at Chicago, 1 minute faster at St. Louis, 28 minutes faster at Salt Lake City, and 10 minutes faster at San Francisco.

FINDING THE TIME BETWEEN DATES.

The time table below is used in finding the number of days between two dates. First, find the exact number of days of the first month to the corresponding day of the last month, within the year, in the column of the last month directly opposite the line of the first month; second, add or subtract, as the case may be, the number of days more than or less than the day of the first month. Example, find the number of days from September 10th to December 23rd. From September 10th to December 10th is ninety-one days; from December 10th to December 13th is thirteen days; total one hundred and four days. This table does not apply in leap years.

From any day of	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
January.....	365	31	59	90	120	151	181	212	243	273	304	334
February.....	334	365	28	59	89	120	150	181	212	242	273	303
March.....	306	337	365	31	61	92	122	153	184	214	245	275
April.....	275	306	334	365	30	61	91	122	153	183	214	244
May.....	245	276	304	335	365	31	61	92	123	153	184	214
June.....	214	245	273	304	334	365	30	61	92	122	153	183
July.....	184	215	243	274	304	335	365	31	62	92	123	153
August.....	153	184	212	243	273	304	334	365	31	61	92	122
September.....	122	153	181	212	242	273	303	334	365	30	62	91
October.....	92	123	151	182	212	243	273	304	335	365	31	61
November.....	61	92	120	151	181	212	242	273	304	334	365	30
December.....	31	62	90	121	151	182	212	243	274	304	335	365

DARK HOURS IN EACH MONTH.

The table on the following page is of value in checking up the output of electricity. It also serves as an excellent explanation of the variation in customers' bills for electric light:

Table Showing Average Number of Dark Hours In Each
Month—Between 6 o'clock morning and
10 o'clock night.

Month	Dark Hours	Percentage of Dark Hours*
January.....	7 hours	3.5
February.....	5 hours, 20 minutes	2.66
March.....	4 hours, 9 minutes	2.1
April.....	3 hours, 7 minutes	1.56
May.....	2 hours, 25 minutes	1.2
June.....	2 hours	1
July.....	2 hours, 2 minutes	1
August.....	2 hours, 41 minutes.....	1.34
September.....	3 hours, 36 minutes	1.8
October.....	5 hours, 8 minutes	2.56
November.....	6 hours, 22 minutes	3.13
December.....	7 hours, 25 minutes	3.17

*Dark hours in June and July form the basis on which the percentage of dark hours in other months is figured.

FLUID MEASURE.

60 minims make	1 drachm.
8 drachms make	1 ounce.
16 ounces make	1 pint.
8 pints make	1 gallon.

TABLES OF USE IN PRINTING

LEADS AND SLUGS.

Leads are designated as “—to-Pica,” the number being that fraction of a Pica which the lead is, viz.: a 6-to-Pica lead is one-sixth of a Pica in thickness, or six, 6-to-Pica's, are equal to one Pica; four, 4-to-Pica's, are equal to one Pica, and so on with other sizes or thickness of leads.

Slugs.—Leads of Nonpareil thickness and greater are called slugs, viz.: Nonpareil slugs, pica slugs, etc.

RULE FOR ESTIMATING BODY TYPE.

To estimate the quantity of type (solid) necessary to fill a given space, multiply the number of square inches by $5\frac{3}{8}$ (estimated weight in ounces, of one square inch of matter, including sorts in case), divide the product by 16 and the result will be the weight of type required. If leaded, a reduction in weight of type may be made from above.

Another rule is as follows: To ascertain the quantity of type (solid) required for newspaper or book work, find the number of square inches to be set, and divide the same by 4, which will give the approximate weight of matter; to which 25 per cent should be added for "sorts," or dead letters remaining in the case. If the matter is to be leaded the weight may be reduced one-quarter.

PROOF-READING

There is considerable latitude in the use of proof-readers' marks and in methods of marking. Figure I shows the uncorrected proof as it goes to the reader for correction. Figure II gives an illustration of the proof marked and ready for marking. It is not to be assumed that there are ever as many errors as are here indicated, in ordinary matter. Matter set on the lino-type from clear copy may not have but two or three minor errors. If hand setting is employed, there are generally more errors, depending much upon the character of the copy. For a concise treatment on marks the reader is referred to the title "Marks Used in Proof-Reading."

Referring to the numbered lines in Figure II, the following are the operations to be performed to correct the proof as marked:

Line 1. Bring the heading to the center; set in caps. Set name "Thomas Carlyle" in italics.

Line 2. Indent paragraph; delete apostrophe; set name "Burns" in small caps. Make cap *W* lower case; insert *y* in place of marked letters.

Line 3. Turn inverted *l*.

ESSAY ON BURNS — THOMAS CARLISLE

Burn's first came upon the World as a prodigee; and was, in that character, entertained by it, in the usual fashion, with vague, loud, tumultuous wonder, speedily subsiding into seclusion and neglect; till his early and most mournful death again awakened an enthusiasm for him, which, especially as there was now nothing to be done, and much to be spoken, has prolonged itself even to our own time.

It is true, the 9 days have long since elapsed, and the very continuance of this clamour proves that Burns was no vulgar wonder. Accordingly, He has come to rest more & more exclusively on his own intrinsic merits, and may now be wellnigh shorn of that casual radiance he appears not only as a true English poet, but as one of the most considerable British men of the 18th century. Let it not be ob-

jected that he did little. He did very much, if we consider how where and we must recollect that he had his every materials to discover; for the for the metal he Worked in lay hid under the desert, where no eye but his has guessed its existence; and we may almost say that with his own hands he had to construct the tools for fashioning it. For he found himself in deepest security — without help, instruction, without model, or with model only of the meanest sort. An educated man stands, as it were, in the midst of a boundless arsenal and magazine, filled with all the weapon and engines which man's skill has been able to devise from the earliest rowed from all Past ages. How different in his state time, and he works, accordingly with a strength borrowed who stands on the outside of that storehouse, and feels that its gates must be stormed, or remain forever shut against him? . . . a dwarf back his steam engine may remove mountains, but no dwarf will hew them down with a pickaxe, and he must be a Titan who hurls them abroad with his arms.

Fig. I

Line 4. Transpose indicated words; raise marked word to line with the rest; insert *ed* at end of line; turn hyphen.

Line 5. Delete *d*; transpose letters indicated.

Line 6. Insert *u* as indicated. Rearrange spacing for line as indicated by carets; insert hyphen at end of line.

Line 7. Clean.

Line 8. Insert *o* in place of letter marked. Insert *o* in place of inverted marked letter.

Lines 9 and 10. Insert *n* as indicated by caret. Insert period in place of marked comma; run in line 10.

1	center/caps	Essay on Burns - Thos. Carlyle	ma/2/2/ital
2	0/2/s/c	Burn's first came upon the World as a prodigy: and	2 c/2/
3		was, to that character, entertained by it, in the usual	2/2/
4	tr/	fashion, with vague, loud, tumultuous wonder, sp-	ed/2
5	2/ta	daily subsiding into pensure and neglect, till his early	
6	2/2/	and most mournful death again awakened an enthu-	even 2/-
7		siasm for him, which, especially as there was now	
8	o/	nothing to be done, and much to be spoken, has	o/
9	cap/sp	prolonged itself even to our own time	o/no 2
10		It is true, the 2 days have long since elapsed, and	2/2/
11	B/a	the very continuance of this clamour proves that	
12	x/sp	Burns was no vulgar wonder. Accordingly, he has	out, see copy/2
13	x/d	come to rest more & more exclusively on his own	l/-
14		intrinsic merits, and may now be well nigh shorn of	
15	British	that casual radiance he appears not only as a true	et al lead
16	2/	English poet, but as one of the most considerable	
17	2/	British men of the (18th) century. Let it not be ob-	2
18	tr as	jected that he did little. He did very much, if we	2/remember
19	numbered	consider how where and we must recollect	2/2
20	2/2	that he had his every materials to discover, here the	2/ed/
21	2/2	for the metal he worked in lay hid under the desert,	
22	2/	where no eye but his has guessed its existence; and	
23	2/	we may almost say that with his own hands he had to	
24	2/	construct the tools for fashioning it. For he found	
25	replace	himself in deepest security & without	2/2/
26	without	help, instruction, without model; or with model	2/2/
27		only of the meanest sort. An educated man stands, as	2/2/
28	fi/x	it were, in the midst of a boundless arsenal and mag-	2/2/
29	2/2	azine, filled with all the weapons and engines which	2/2/
30	2/2	his skill has been able to devise from the earliest	2/2/
31	2/2	times; and he works, accordingly, with a strength bor-	2/2/
32	2/2	rowed from all past ages. How different is his state	2/2/
33	2/2	time; and he works, accordingly, with a strength bor-	2/2/
34	2/2	rowed from all past ages. How different is his state	2/2/
35	2/2	time; and he works, accordingly, with a strength bor-	2/2/
36	2/2	rowed from all past ages. How different is his state	2/2/
37	2/2	time; and he works, accordingly, with a strength bor-	2/2/
38	2/2	rowed from all past ages. How different is his state	2/2/

Fig. II

Capitalize *i*; spell out (sp.) 9. Insert quotation marks as indicated by carets.

Line 11. Clean.

Line 12. Insert cap *B* and lower case *a*, as indicated. Insert from copy omitted words as indicated by caret; change *H* to lower case.

Line 13. Broken letter; spell out *g*.

Line 14. Broken letter; change *e* to *d*. Delete *l* and insert hyphen.

Line 15. Insert comma.

Line 16. Delete word marked, inserting word on margin. Let *most* stand, it was wrongly marked out.

Line 17. Spell out ringed word. Insert lead above the line.

Line 18. Delete marked word.

Line 19. Transpose words in order numbered; bring this line and line above to margin. Change marked letter to cap *W*; change marked word to word on margin.

Line 20. Turn marked letter; delete *e*. Delete marked words.

Line 21. Make cap *W* lower case. Insert *e* as indicated by caret.

Line 22. Insert *e* as marked. Insert *ed* as marked.

Line 23. Insert space as indicated by caret.

Line 24. Push down space.

Line 25. Respace marked words. Insert *obs* as marked; change marked dash to comma; align final letter of this and preceding and following line.

Line 26. Insert word on margin as indicated by caret.

Line 27. Make new paragraph as indicated.

Line 28. Turn marked letters.

Line 29. Set *f* as a logotype; change broken letter. Bring *s* to left, inserting space after it; change *h* to *n*.

Line 30. Change *n* to *m*; transpose ringed characters. Change *z* to *s*.

Line 31. Change cap *P* to lower case. Change *n* to *s*; italicize *his*.

Line 32. Push down lead. Transpose lines 32 and 31.

Line 33. Insert *e* in place of caret.

Line 34. Change italicized word to roman.

Line 35. Wrong font *s* to be changed; interrogation mark to be changed to exclamation point; change lower case *a* to cap. Change marked word to margin word; insert hyphen, *n* and *i* as indicated.

Line 36. Straighten line. Change spelling of *hue* as indicated in margin.

Line 37. Turn *n*; insert *e* as marked.

Line 38. Clean.

MARKS USED IN PROOF-READING

For &	Take out; delete. This character is variously made, these forms being common.
#	Space; more space;—often used in conjunction with the caret.
⌞	Push down;—designating a space or quad which shows black.
9	Turn inverted letter or character so as to show correct.
.....	Let the matter stand; do not change;— <i>stet</i> is placed in the margin.
tr.	Transpose letters, characters, leads, lines or other matter indicated.
[,]	Bring to left or right, toward face of bracket;—if with <i>center</i> , bring to center.
□	Indent line one em of type of its own measure.
x	Take out broken, worn or disfigured letter or character.
o	Insert period;—often called “proof-reader’s period,” used in writing for distinctness.
()	Close up letters, parts of words or other open space.
=	Bring matter up or down so as to present a straight line or lines.
	Bring matter to right or left so as to make margin even.
⌈, ⌋	Bring matter up or down, whichever way face of bracket is turned.
w.f.	Letter or character indicated is “wrong font”; supply one of right font.
ital	Abbreviation for <i>italic</i> ; change to italic.
lc.	The abbreviation for roman is <i>rom</i> .
aa	Change indicated letter, word or other matter to lower case.
aa	Change to italic, small capitals and capitals respectively, denoted by number of lines.
¶	Indent so as to make paragraph; begin new paragraph.
ae	Set as a logotype instead of in two or more letters.

It will be seen that these marks for reading proof are in reality comparatively few and simple. However, the work of proof-reading is not easy and might be considered somewhat of an art. The eye that is keen enough to discover a typographical error at a glance, especially a minor mistake such as the substitution of a "c" for an "e" and vice versa, is not as common as might be supposed. A proof-reader, necessarily, must be well trained and must understand not only the typographical problems connected with the work, but the best usages of words and other grammatical points.

DISTANCES FROM NEW YORK AND THE TIME IT TAKES LETTERS TO REACH DIFFERENT PARTS OF THE WORLD.

To—	Miles	Days
Adelaide, via San Francisco.....	12,845	28
Alexandria, via London.....	6,150	12
Amsterdam, via London	3,985	8
Athens, via London	5,655	11
Bahia, Brazil	5,870	14
Berlin, via London	4,385	8
Bombay, via London	9,765	22
Buenos Ayres	8,045	24
Calcutta, via London	11,120	24
Cape Town, via London.....	11,245	25
Constantinople, via London	5,810	11
Florence, via London	4,800	9
Glasgow, via London.....	3,370	8
Greytown, via New Orleans.....	2,815	7
Halifax, N. S., via railroad.....	967	1½
Havana, Cuba	1,366	3
Hong Kong, China, via San Francisco...	10,590	27
Honolulu, Sandwich Islands, via San Fran- cisco	5,645	12
Liverpool, England	3,540	7
London	3,740	7
Madrid, via London	4,925	9
Melbourne, Australia, via San Francisco.	12,265	27
Mexico City, by railroad.....	3,750	5

To—	Miles	Days
Panama	2,355	6
Paris	4,020	8
Rio de Janeiro	6,204	17
Rome, via London	5,030	9
St. Petersburg, via London.....	5,370	10
Shanghai, via Vancouver.....	9,920	25
Stockholm, via London.....	4,975	10
Sydney, via San Francisco.....	11,570	26
Valparaiso, via Panama.....	5,915	22
Vienna, via London.....	4,740	9
Yokohama, via San Francisco.....	7,345	20

POSTAL DISTANCES AND TIME BETWEEN NEW YORK AND OTHER CITIES OF THE UNITED STATES.

The distances by the shortest routes and the time by the fastest trains between New York city and the points indicated are given by the Official Postal Guide as follows:

Cities in United States.	Miles	Hours
Albany, N. Y.....	142	3½
Atlanta, Ga.	882	24¼
Baltimore, Md.	188	6
Binghamton, N. Y.....	207	5½
Bismarck, N. Dak	1,738	60½
Boise, Idaho	2,736	92½
Boston, Mass.	217	7
Buffalo, N. Y.....	410	9½
Cape May, N. J.....	172	5
Carson City, Nev.	3,036	109¼
Charleston, S. C.....	804	21¼
Chattanooga, Tenn.	853	32
Cheyenne, Wyo.	1,892	54
Chicago, Ill.	900	23
Cincinnati, Ohio	744	23
Cleveland, Ohio	568	19½
Columbus, Ohio	624	20
Concord, N. H.....	292	9½
Deadwood, S. Dak.....	1,975	65½

Cities in United States.	Miles.	Hours
Denver, Colo.....	1,930	61½
Des Moines, Iowa.....	1,257	37½
Detroit, Mich.....	743	21
Galveston, Tex.....	1,789	56½
Harrisburg, Pa.....	182	6
Hartford, Conn.....	112	4
Helena, Mont.....	2,423	89
Hot Springs, Ark.....	1,367	55
Indianapolis, Ind.....	808	23
Jacksonville, Fla.....	1,077	32
Kansas City, Mo.....	1,302	38¼
Louisville, Ky.....	854	30
Memphis, Tenn.....	1,163	40
Milwaukee, Wis.....	985	29¼
Montgomery, Ala.....	1,057	30½
Montpelier, Vt.....	327	10¼
New Orleans, La.....	1,344	40
Omaha, Neb.....	1,383	43
Philadelphia, Pa.....	90	3
Pittsburg, Pa.....	431	13
Portland, Me.....	325	12
Portland, Ore.....	3,181	114½
Prescott, Ariz.....	2,724	94
Providence, R. I.....	189	6
Richmond, Va.....	344	11¼
St. Louis, Mo.....	1,048	29
St. Paul, Minn.....	1,300	37
Salt Lake City, Utah.....	2,452	71½
San Francisco, Cal.....	3,250	106
Santa Fe, N. Mex.....	2,173	82
Savannah, Ga.....	905	26
Scranton, Pa.....	146	4½
Tacoma, Wash.....	3,209	102
Topeka, Kan.....	1,370	48
Vicksburg, Miss.....	1,288	50
Vinita, Ind. T.....	1,412	42
Washington, D. C.....	228	6½
Wheeling, W. Va.....	496	14¼
Wilmington, Del.....	117	5
Wilmington, N. C.....	593	20

Wherever a person may live a glance at this table will give approximately the time required for mail to pass between that city or town and New York. In some cases where important information is sought or where a business transaction is at stake this table would be found helpful in computing time required for a letter to be carried between the two points. The foreign table could be employed with equal profit.

TABLES OF INTEREST, DISCOUNT, ETC.

INTEREST.

Interest is commonly defined to be a compensation for the use of money or value, though literally it is the use of money.

The amount received or paid for interest is usually a percentage on the amount used, and is either fixed by contract or by statute. Per cent signifies by the hundred and implies, in interest, so many cents on the hundred cents, or so many dollars on the hundred dollars, etc. The usual custom is to reckon interest by the year, but it is better to express the time in the note or other instrument, as it is not necessarily understood. The following simple rule for calculating interest at 6 per cent will be of assistance.

Call every year .06, every two months .01, every six days .001, and any less days sixths of one mill; then to ascertain the interest:

Rule.—Multiply the principal by the rate per cent expressed decimally; or, cut off two figures from the right of dollars in the principal by a decimal point, and the result will be the interest for 60 days; then multiply this result by one-half the number of months required, to which add for days that proportion of the interest for 60 days, which the given number of days is of 60.

Interest Rules.—To find the interest on any sum at 3, 4, 5, 6, 7½, and 10 per cent for one month:

At 3 per cent remove the decimal point two places to the left, divide by 4 and the quotient will be the interest for one month.

At 4 per cent remove the decimal point two places

to the left, divide by 3 and the quotient will be the interest for one month.

At 5 per cent remove the decimal point one place to the left, divide by 24 and the quotient will be the interest for one month.

At 6 per cent remove the decimal point two places to the left, divide by 2 and the quotient will be the interest for one month.

At $7\frac{1}{2}$ per cent remove the decimal point one place to the left, divide by 16 and the quotient will be the interest for one month.

At 8 per cent remove the decimal point one place to the left, divide by 15 and the quotient will be the interest for one month.

At 10 per cent remove the decimal point one place to the left, divide by 12 and the quotient will be the interest for one month.

The following rules are in general use among businessmen, and may prove of assistance in calculating interest:

Rule.—Multiply the amount of the note or other instrument by the number of days before it becomes due, point off the right-hand figure and divide by the numbers stated in the following table:

4 per cent divide by.... 9	10 per cent divide by .36
5 per cent divide by....72	12 per cent divide by... 3
6 per cent divide by.... 6	15 per cent divide by...24
8 per cent divide by....45	18 per cent divide by... 2
9 per cent divide by.... 4	20 per cent divide by...18

The rule for casting interest, when the partial payments have been made, is to apply the payment, in the first place, to the discharge of the interest then due. If the payment exceeds the interest, the surplus goes towards discharging the principal, and the subsequent interest is to be computed on the balance of the principal remaining due. If the payment is less than the interest, the surplus of interest must not be taken to augment the principal; but interest continues on former principal until the period when the payments, taken together, exceed the interest due, and then the surplus is to be applied towards discharging the principal, and interest is to be computed on the balance.

"LIGHTNING METHOD" FOR CALCULATING INTEREST.

Where the Time is for Days Only.

Rule.—To find the interest on any given sum for any number of days, multiply the principal by the number of days, then point off two places and divide as follows:

At 5 per cent divide by 72.

At 6 per cent divide by 60.

At 7 per cent divide by 52.

At 8 per cent divide by 45.

At 9 per cent divide by 40.

At 10 per cent divide by 36.

At 12 per cent divide by 30.

Example: What is the interest on \$900.00 for 8 days at 6 per cent?

Solution: $900 \times 8 \div 60 = \$1.20$ interest.

BANKERS' METHOD OF CALCULATING INTEREST.

In banking nearly all the business is transacted on the basis of 30, 60 and 90 days.

Rule.—To find the interest on any amount at 60 days, remove the decimal point two places to the left, and you have the interest at 6 per cent.

Increase or diminish according as the time is increased or diminished.

For 90 days add $\frac{1}{2}$ of itself; for 30 days divide by 2; for 15 days divide by 4; for 120 days multiply by 2.

Example: What is the interest on \$240 for 90 days at 6 per cent?

2.40 interest for 60 days.

1.20 interest for $\frac{1}{2}$ of 60 days, or 30 days.

3.60 interest for 90 days.

WHEN THE TIME CONSISTS OF YEARS, MONTHS, AND DAYS.

Rule.—Reduce years to months, adding the number of months, then place $\frac{1}{3}$ of the number of days to the right of the months with a decimal point between.

Then remove the decimal point two places to the left

in the principal, and divide by 2 and the result will equal the interest for one month at 6 per cent.

Multiply the interest for one month by the number of months, and the product is the interest at 6 per cent for the given time.

Then add 1-6 of itself for 7 per cent

Then add 1-3 of itself for 8 per cent

Then add 1-2 of itself for 9 per cent

Then add 2-3 of itself for 10 per cent

Subtract 1-6 of itself for 5 per cent

Subtract 1-3 of itself for 4 per cent

Example: Find the interest on \$150, at 9 per cent, for 1 year, 4 months, and 12 days:

Solution: $\$150 \div 2 = .75$ interest for 1 month, 1 year, 4 months, and 12 days — 16.4 months.

$.75 \times 16.4 = \$12.30$, interest at 6 per cent

$12.30 + 6.15 = \$18.45$, interest at 3 per cent

N. B.—The \$6.15 is one-half of \$12.30.

TIME AT WHICH MONEY DOUBLES AT INTEREST.

Rate Per Cent.	Simple Interest.	Compound Interest.
2.....	50 years.	35 years 1 day.
2½.....	40 years.	28 years 26 days.
3.....	33 years 4 months.	23 years 164 days.
3½.....	28 years 268 days.	20 years 54 days.
4.....	25 years.	17 years 246 days.
4½.....	22 years 81 days.	15 years 273 days.
5.....	20 years.	15 years 75 days.
6.....	16 years 8 months.	12 years 327 days.
7.....	14 years 104 days.	10 years 89 days.
8.....	12½ years.	9 years 2 days.
9.....	11 years 40 days.	8 years 16 days.
10.....	10 years.	7 years 100 days.

HOW MONEY GROWS AT INTEREST.

If one dollar be invested and the interest added to the principal annually, at the rates named, we shall

have the following result as the accumulation of one hundred years:

One dollar, 100 years at 1 per cent, $\$2\frac{3}{4}$;	
2 per cent.....	$\$7\frac{1}{4}$
One dollar, 100 years at 3 per cent, $\$19\frac{1}{4}$;	
4 per cent.....	$50\frac{1}{2}$
One dollar, 100 years at 5 per cent.....	$131\frac{1}{2}$
One dollar, 100 years at 6 per cent.....	340
One dollar, 100 years at 7 per cent.....	868
One dollar, 100 years at 8 per cent.....	2,203
One dollar, 100 years at 9 per cent.....	5,513
One dollar, 100 years at 10 per cent.....	13,809
One dollar, 100 years at 12 per cent.....	84,675
One dollar, 100 years at 15 per cent.....	1,174,405
One dollar, 100 years at 18 per cent.....	15,145,006
One dollar, 100 years at 24 per cent.....	2,551,799,404

SIMPLE INTEREST COMPUTATION.

Several systems of interest computation by tables are in use. The table below may be used to find the interest due on a given sum for any period at any rate. Take an example. Find the interest due on \$1190 for two years. Divide the principal in thousands, hundreds and tens for the computation of the interest. The interest on \$1000 is \$120; on \$100, \$12; on \$90, \$10.80; total interest, \$142.80. To determine the interest on thousands move the decimal point as shown in the ten-dollar column two places to the right; on hundreds, one place to the right. On tens other than the unit ten which is indicated in the table, the decimal point as shown in the specific unit column is changed one place to the right. To compute the interest on the same sums for three years, six months, ten days at the same rate of per cent, the interest for two years, one year, six months and ten days may be determined separately by the above method and added. Computation for different rates of interest may be made from the table by determining the ratio of the designated rate to six per cent. For example, if the rate is three per cent, obviously the total interest would be one-half of the total interest determined for six per cent.

INTEREST TABLE AT SIX PER CENT.

Time	\$1	\$2	\$3	\$4	\$5	\$6	\$7	\$8	\$9	\$10	Time
1 da.	.00017	.00033	.0005	.00067	.00083	.001	.00117	.00133	.0015	.00167	1 da.
2 da.	.00033	.00067	.001	.00133	.00167	.002	.00233	.00267	.003	.00333	2 da.
3 da.	.0005	.001	.0015	.002	.0025	.003	.0035	.004	.0045	.005	3 da.
4 da.	.00067	.00133	.002	.00267	.00333	.004	.00467	.00533	.006	.00667	4 da.
5 da.	.00083	.00167	.0025	.00333	.00417	.005	.00583	.00667	.0075	.00833	5 da.
6 da.	.001	.002	.003	.004	.005	.006	.007	.008	.009	.01	6 da.
7 da.	.00117	.00233	.0035	.00467	.00583	.007	.00817	.00933	.0105	.01167	7 da.
8 da.	.00133	.00267	.004	.00533	.00667	.008	.00933	.01067	.012	.0133	8 da.
9 da.	.0015	.003	.0045	.00667	.0075	.009	.0105	.012	.0135	.015	9 da.
10 da.	.00167	.00333	.005	.00667	.00833	.01	.01167	.01333	.015	.01667	10 da.
20 da.	.00333	.00667	.01	.01333	.01667	.02	.02333	.02667	.03	.03333	20 da.
1 mo.	.005	.01	.015	.02	.025	.03	.035	.04	.045	.05	1 mo.
2 mo.	.01	.02	.03	.04	.05	.06	.07	.08	.09	.10	2 mo.
3 mo.	.015	.03	.045	.06	.075	.09	.105	.12	.135	.15	3 mo.
4 mo.	.02	.04	.06	.08	.10	.12	.14	.16	.18	.20	4 mo.
5 mo.	.025	.05	.075	.10	.125	.15	.175	.20	.225	.25	5 mo.
6 mo.	.03	.06	.09	.12	.15	.18	.21	.24	.27	.30	6 mo.
7 mo.	.035	.07	.105	.14	.175	.21	.245	.28	.315	.35	7 mo.
8 mo.	.04	.08	.12	.16	.20	.24	.28	.32	.36	.40	8 mo.
9 mo.	.045	.09	.135	.18	.225	.27	.315	.36	.405	.45	9 mo.
10 mo.	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	10 mo.
11 mo.	.055	.11	.165	.22	.275	.33	.385	.44	.495	.55	11 mo.
1 yr.	.06	.12	.18	.24	.30	.36	.42	.48	.54	.60	1 yr.
2 yr.	.12	.24	.36	.48	.60	.72	.84	.96	1.08	1.20	2 yr.

COMPUTING COMPOUND INTEREST.

Interest that is computed on the sum of the original capital and unpaid interest (usually periodically added to the principal) is called compound interest. To find the compound interest for a given period on a certain amount multiply the number of dollars in this amount by the amount (see table below) found in the per cent column directly opposite the number of years specified and subtract the original capital. Take one-half the rate for twice the time if the interest is to be compounded semiannually, and one-fourth the rate for four times the time, if quarterly. The table is not limited to use for periods under twenty years. For the amount of \$1 for twenty-five years multiply the amount of \$1 for twenty years by the amount of \$1 for five years; for forty years multiply the amount of \$1 for twenty years by itself.

Year	2%	2½%	3%	3½%	4%	4½%	5%	Year
1	1.02000	1.02500	1.03000	1.03500	1.04000	1.04500	1.05000	1
2	1.04040	1.05063	1.06090	1.07123	1.08160	1.09203	1.10250	2
3	1.06121	1.07689	1.09273	1.10872	1.12486	1.14117	1.15763	3
4	1.08243	1.10381	1.12551	1.14752	1.16986	1.19252	1.21551	4
5	1.10408	1.13141	1.15927	1.18769	1.21665	1.24618	1.27628	5
6	1.12616	1.15969	1.19405	1.22926	1.26532	1.30226	1.34010	6
7	1.14869	1.18869	1.22987	1.27228	1.31593	1.36086	1.40710	7
8	1.17166	1.21840	1.26677	1.31681	1.36857	1.42210	1.47746	8
9	1.19509	1.24886	1.30477	1.36290	1.42331	1.48610	1.55133	9
10	1.21899	1.28009	1.34392	1.41060	1.48024	1.55297	1.62889	10
11	1.24337	1.31209	1.38423	1.45997	1.53945	1.62285	1.71034	11
12	1.26824	1.34489	1.42576	1.51107	1.60103	1.69588	1.79586	12
13	1.29361	1.37851	1.46853	1.56396	1.66507	1.77220	1.88565	13
14	1.31948	1.41297	1.51259	1.61870	1.73168	1.85194	1.97993	14
15	1.34587	1.44830	1.55797	1.67535	1.80094	1.93528	2.07893	15
16	1.37279	1.48451	1.60471	1.73399	1.87298	2.02237	2.18287	16
17	1.40024	1.52162	1.65285	1.79468	1.94790	2.11338	2.29202	17
18	1.42825	1.55966	1.70243	1.85749	2.02582	2.20848	2.40662	18
19	1.45681	1.59865	1.75351	1.92250	2.10685	2.30786	2.52695	19
20	1.48595	1.63862	1.80611	1.98979	2.19112	2.41171	2.65330	20

DETERMINING THE MATURITY OF NEGOTIABLE PAPER.

The table below is used in finding the maturity of notes and drafts. The first and third columns indicate the number of the month; the second column the month and the number of days more (minus sign) or less (plus sign) than thirty therein. Take a note payable six months from September 10th. September is the ninth month (Column I). Nine plus six equals fifteen. The fifteenth month is March (Column III); so the note is due March 10th. If the note had been payable one hundred and eighty days from date, it would have been due March 9th. Three days, one for October, December and January, are subtracted from the two added for February (Column II).

Maturity Table.

1	January—1	13	7	July—1	19
2	February—2	14	8	August—1	20
3	March—1	15	9	September	21
4	April	16	10	October—1	22
5	May—1	17	11	November	23
6	June	18	12	December—1	24

DISCOUNT.

Discount is an allowance made for the payment of money before it becomes due, and is either the interest on the debt for the time, which is called *true discount*, or upon such a sum as will amount to the face of the debt when due, which is called bank discount. It will be observed that by true discount the interest is considered due when the debt is due, but by bank or business discount it is considered due when the note is discounted.

ESTIMATING PROFITS.

In order to ascertain the profit received, it will be necessary to find the actual cost of the merchandise and then deduct the cost from the selling price, and the remainder will be the profit. There are various ways of estimating profits, and the following may be of assistance:

Rule.—Divide the gross sales by 1. (one dollar), plus the rate per cent of profit (as agreed upon), and the quotient will be present value or net cost of goods sold; then deduct net cost of goods sold from gross sales, and the remainder will be the profit.

This result may also be obtained by the use of aliquot percentages. One quantity or number is said to be an aliquot part of another when it is contained in or will divide the other an exact number of times without any remainder. An aliquot number or part is one that is not contained in or will not divide the other without a remainder.

Rule for ascertaining the divisor of aliquot parts of 100:

Rule.—Add the percentages named to 100, and then divide the sum thus obtained by the percentage given, and the dividend will be the number by which to divide the amount of sales to ascertain the profit.

Rule for ascertaining profits by aliquot percentages:

Rule.—Divide the total amount of sales by the divisor obtained, by the rule given above, and the quotient will be the profits on the sales; then to ascertain

net cost subtract the profits from amount of sales, and the remainder will be net cost or present value.

The following table of aliquot parts of 100 has been obtained by following the rule given above, and will undoubtedly prove of assistance:

TABLE OF ALIQUOT PERCENTAGES OF 100.

1.	is the 1-100th,	divide by 101
1.25	is the 1-80th,	divide by 81
1.5625	is the 1-64th,	divide by 65
2.	is the 1-50th,	divide by 51
2.0833	is the 1-48th,	divide by 49
2.50	is the 1-40th,	divide by 41
3.125	is the 1-32nd,	divide by 33
4.	is the 1-25th,	divide by 26
5.	is the 1-20th,	divide by 21
6.25	is the 1-16th,	divide by 17
8.333	is the 1-12th,	divide by 13
10.	is the 1-10th,	divide by 11
12.50	is the 1-8th,	divide by 9
16.666	is the 1-6th,	divide by 7
20.	is the 1-5th,	divide by 6
25.	is the 1-4th,	divide by 5
33.333	is the 1-3rd,	divide by 4
50.	is the 1-2nd,	divide by 3

The aliquant process is similar to and is in reality nothing more or less than the old rule for ascertaining present value:

Rule.—Divide the amount of sales by 1. (one dollar), plus the rate per cent expressed decimally, and the quotient will be the present value or cost of the merchandise; then to ascertain profits, it will be necessary to subtract the cost from the amount of sales, and the remainder will be the profits.

ALIQUOT PARTS OF ONE DOLLAR.

50	cents equal		$\frac{1}{2}$	of one dollar
33 $\frac{1}{3}$	cents equal		$\frac{1}{3}$	of one dollar
25	cents equal		$\frac{1}{4}$	of one dollar
20	cents equal		$\frac{1}{5}$	of one dollar
16 $\frac{2}{3}$	cents equal		$\frac{1}{6}$	of one dollar
12 $\frac{1}{2}$	cents equal		$\frac{1}{8}$	of one dollar

10 cents equal	1-10 of one dollar
8 $\frac{1}{3}$ cents equal	1-12 of one dollar
6 $\frac{1}{4}$ cents equal	1-16 of one dollar
5 cents equal	1-20 of one dollar

ALIUOT PARTS OF A TON.

10 cwt. equal	 $\frac{1}{2}$ of a ton
5 cwt. equal	 $\frac{1}{4}$ of a ton
4 cwt. equal	 $\frac{1}{5}$ of a ton
2 cwt. 2 qrs., equal	 $\frac{1}{8}$ of a ton
2 cwt. equal	1-10 of a ton
1 cwt. equal	1-20 of a ton

ALIUOT PARTS OF A POUND AVOIRDUPOIS.

8 ounces equal	 $\frac{1}{2}$ of a pound
4 ounces equal	 $\frac{1}{4}$ of a pound
2 ounces equal	 $\frac{1}{8}$ of a pound
1 ounce equals	1-16 of a pound

ALIUOT PARTS OF TIME.

6 months equal	 $\frac{1}{2}$ of a year
4 months equal	 $\frac{1}{3}$ of a year
3 months equal	 $\frac{1}{4}$ of a year
2 months equal	 $\frac{1}{6}$ of a year
1 $\frac{1}{2}$ months equal	 $\frac{1}{8}$ of a year
1 $\frac{1}{3}$ months equal	 1-9 of a year
1 month equals	1-12 of a year
15 days equal	 $\frac{1}{2}$ of a month
10 days equal	 $\frac{1}{3}$ of a month
6 days equal	 $\frac{1}{5}$ of a month
3 days equal	1-10 of a month
2 days equal	1-15 of a month
1 day equals	1-30 of a month

VALUES OF FOREIGN COINS.

Country	Standard	Monetary Unit	Value in U.S. Gold
Brazil	Gold	Milreis	\$.546
Denmark, Norway, Sweden	Gold	Crown	.268
France, Belgium, Switzerland	Gold	Franc	.193
German Empire	Gold	Mark	.238
Great Britain	Gold	Pound Sterling	4.886 $\frac{1}{2}$
Japan	Gold	Yen	.498
Mexico	Silver	Dollar	.498
Netherlands	Gold	Florin	.402
Philippine Islands	Gold	Peso	.500
Russia	Gold	Ruble	.515

The *lira* of Italy, and the *peseta* of Spain, are of the same value as the franc.
The *dollar* is the standard of Canada except in Newfoundland.

COINS OF THE UNITED STATES.

The coins at present in circulation in the United States may be classified as gold coins, silver dollars, subsidiary silver and minor coins. The gold coins are the double-eagle, the eagle, the half-eagle, and the quarter-eagle, weighing respectively 516, 258, 129 and $64\frac{1}{2}$ grains of standard gold; that is, of a mixture consisting of nine parts of pure gold to one part of copper. The pure gold in the eagle weighs, therefore, 232 2-10 grains. These coins are legal tender in unlimited quantities for twenty, ten, five and two and one-half dollars respectively, and they are minted free of charge for whoever brings metal to the mint of the requisite degree of fineness. For nearly half a century after the establishment of the first United States mint, in 1793, the eagle contained 270 grains of standard gold .916 2-3 fine, and the alloy consisted of silver and copper mixed. The change to our present system was authorized by the acts of June 28, 1834, and January 18, 1837. For a time also a seigniorage charge of one-fifth of one per cent was imposed, but this regulation was repealed by an act passed January 14, 1875.

Our subsidiary silver coins are the half-dollar, quarter-dollar and dime, weighing respectively 192.9, 96.45, 38.58 grains of standard, or 173.61, 86.805, 34.725 grains of pure silver. The amount of the issue was limited by the acts of July 14, 1875, and April 17, 1876, to about forty-two million dollars, the sum needed to retire the so-called fractional paper currency of that time. This limit has been increased from time to time by special legislation. These coins are legal tender to the amount of ten dollars only, and are redeemable at the treasury or any subtreasury of the United States in sums or multiples of twenty dollars. They are issued in like quantities for lawful money to any person desiring them, and delivered by the government free of charge. At one time half-dimes and three-cent pieces of silver were issued from the mint, but their coinage was ordered discontinued by the mint act of 1873.

The minor coins of the United States are a five-cent piece, weighing 77.16 grains, and made of a mix-

ture of copper and nickel in the proportion of 75 parts of the former to 25 parts of the later; a one-cent coin weighing 48 grains, and consisting of a mixture of copper, tin and zinc in the proportion of 95 parts of the former to 5 parts of the two latter materials. From 1873 to 1890 a three-cent coin of nickel and copper was also in circulation. These coins are legal tender to the amount of twenty-five cents only, are redeemable at any subtreasury in sums of twenty dollars or more, and are delivered free of charge in similar quantities to any person who is willing to pay lawful money for them. Their supply is regulated by the director of the mint, under the supervision of the Secretary of the Treasury, the purpose being to keep in circulation precisely the quantity which is actually needed for the commerce of the country.

RAPID CALCULATION

"LIGHTNING METHOD" OF MULTIPLICATION AND DIVISION.

To multiply by 125, divide by 8, and call it thousands, because 125 is $\frac{1}{8}$ of a thousand.

To multiply by $12\frac{1}{2}$, divide by 8; call it hundreds.

To multiply by $1\frac{1}{4}$, divide by 8; call it tens.

To multiply by $62\frac{1}{2}$, divide by 16, and call it thousands.

To multiply by $6\frac{1}{4}$, divide by 16, and call it hundreds.

To multiply by $31\frac{1}{4}$, divide by 32, and call it thousands.

To multiply by $333\frac{1}{3}$, divide by 3, and call it thousands.

To multiply by $33\frac{1}{3}$, divide by 3, and call it hundreds.

To multiply by $3\frac{1}{3}$, divide by 3 and call it tens.

To multiply by 50, divide by 2 and call it hundreds.

To multiply by $66\frac{2}{3}$, divide by 15, and call it thousands.

To multiply by $833\frac{1}{3}$, divide by 12, and call it ten thousands, by annexing four ciphers.

To multiply by $83\frac{1}{3}$, divide by 12, and call it thousands.

To multiply by $8\frac{1}{3}$, divide by 12, and call it hun-

dreds, because $8\frac{1}{3}$ is 1-12 of a hundred. The reason is similar in each case.

To multiply by $166\frac{2}{3}$, divide by 6, and call it thousands.

To multiply by $16\frac{2}{3}$, divide by 6, and call it hundreds.

To multiply by $1\frac{2}{3}$, divide by 6, and call it tens.

To multiply by $37\frac{1}{2}$, take $\frac{3}{8}$ of the number, and call it hundreds; $87\frac{1}{2}$, $\frac{7}{8}$ of the number, and call it hundreds, etc.

We simply reverse these methods to divide. To divide by 10, 100, 1,000, etc., we remove the point one, two and three places to the left.

To divide by 25, remove the decimal point two places to the left, and multiply by 4.

Removing the point two places divides by one hundred; hence the quotient is four times too small; hence we remove the point two places, and multiply by 4.

To divide by $2\frac{1}{2}$, remove the point one place to the left, and multiply by 4.

To divide by 125, remove the point three places to the left, and multiply by 8.

To divide by $12\frac{1}{2}$, remove the point two places to the left, and multiply by 8.

To divide by $1\frac{1}{4}$, remove the point one point to the left, and multiply by 8. There are about $1\frac{1}{4}$ cubic feet in one bushel. Hence dividing the number of cubic feet by $1\frac{1}{4}$ gives the number of bushels nearly.

To divide by $133\frac{1}{3}$, remove the point three places to the left, then multiply by 3 and divide by 4.

To divide by $8\frac{1}{3}$, remove the point two places to the left, and multiply by 12.

CONTRACTIONS IN MULTIPLICATION.

To multiply by 25 add 2 ciphers and divide by 4.

To multiply by $33\frac{1}{3}$ add 2 ciphers and divide by 3.

To multiply by 125 add 3 ciphers and divide by 8.

To multiply by 175 add 2 ciphers and divide by 4, and multiply result by 7.

METRIC SYSTEM

The Metric System has been adopted by Mexico, Brazil, Chile, Peru, etc., and except Russia and Great Britain, where it is permissive, by all European nations. Various names of the preceding systems are, however, frequently used: In Germany, $\frac{1}{2}$ kilogram = 1 pound; in Switzerland, 3-10 of a metre = 1 foot, etc. If the first letters of the prefixes *deka*, *hecto*, *kilo*, *myria*, from the Greek, and *deci*, *centi*, *mili*, from the Latin, are used in preference to our plain English, 10, 100, etc., it is best to employ capital letters for the multiples and small letters for the subdivisions, to avoid ambiguities in abbreviations: 1 dekametre or 10 metres = 1 Dm.; 1 decimetre or 1-10 of a metre = 1 dm.

The Metre, unit of length, is nearly the ten-millionth part of a quadrant of a meridian, of the distance between equator and pole. The International Standard Metre is, practically, nothing else but a length defined by the distance between two lines on a platinum-iridium bar at 0° Centigrade, deposited at the International Bureau of Weights and Measures, Paris, France.

The Litre, unit of capacity, is derived from the weight of one kilogram pure water at greatest density, a cube whose edge is one-tenth of a metre and, therefore, the one-thousandth part of a metric ton.

The Gram, unit of weight, is a cube of pure water at greatest density, whose edge is one-hundredth of a metre, and, therefore, the one-thousandth part of a kilogram, and the one-millionth part of a metric ton.

One silver dollar weighs 25 grams, 1 dime = $2\frac{1}{2}$ grams, 1 five-cent nickel = 5 grams.

The Metric System was legalized in the United States on July 28, 1866, when Congress enacted as follows:

"The tables in the schedule hereto annexed shall be recognized in the construction of contracts, and in all legal proceedings, as establishing, in terms of the weights and measures now in use in the United States, the equivalents of the weights and measures expressed therein in terms of the metric system, and the tables may lawfully be used for computing, determining, and

expressing in customary weights and measures the weights and measures of the metric system."

The following are tables of equivalents:

1 meter = 39.37 inches.	1 yd. = .9144 m.
1 kilometer = .62137 mile.	1 rod = 5.029 m.
1 sq. meter = 1.196 sq. yds.	1 mile = 1.6093 Km.
1 cu. meter = 1.308 cu. yds.	1 sq. yd. = .8361 sq. m.
1 Are = 119.6 sq. yds.	1 acre = 40.47 ares.
1 hectar = 2.471 acres.	1 sq. mile = 259 Ha.
1 liter = 1.0567 quarts.	1 cubic foot = 28.317 liters.
1 hektoliter = 2.8375 bu.	1 cubic yard = .7645 cu. m.
1 ster. = .2759 cord.	1 liquid quart = .9465 liter.
1 gram = 15.432 grains, Troy.	1 bushel = .35243 Hl.
1 kilogram = 2.2046 lb. Avoir.	1 lb. Troy = .37324 Kg.
	1 lb. Avoir. = .4536 Kg.

The first column of equivalents gives the approximate legalized values, and contains most of the denominations in common use.

MARKING GOODS

RULE FOR MARKING GOODS TO MAKE SPECIFIC PROFITS.

In marking goods bought by the dozen to make a specific per cent of profit, the following will be of assistance:

To make $12\frac{1}{2}$ per cent, remove the decimal point and subtract one-sixteenth.

To make $16\frac{2}{3}$ per cent, remove the decimal point and subtract one-thirty-sixth.

To make $18\frac{3}{4}$ per cent, remove the decimal point and subtract one-ninety-sixth.

To make 20 per cent, remove the decimal point one place to the left.

To make 25 per cent, remove the decimal point and add one-twenty-fourth.

To make 26 per cent, remove the decimal point and add one-twentieth.

To make 28 per cent, remove the decimal point and add one-fifteenth.

To make 30 per cent, remove the decimal point and add one-twelfth.

To make 32 per cent, remove the decimal point and add one-tenth.

To make $33\frac{1}{3}$ per cent, remove the decimal point and add one-ninth.

To make 35 per cent, remove the decimal point and add one-eighth.

To make 40 per cent, remove the decimal point and add one-sixth.

To make 44 per cent, remove the decimal point and add one-fifth.

To make 50 per cent, remove the decimal point and add one-fourth.

To make 60 per cent, remove the decimal point and add one-third.

To make 80 per cent, remove the decimal point and add one-half.

HOW MANUFACTURERS AND CONTRACTORS FIGURE COSTS IN ESTIMATES.

To figure costs in estimates is often a difficult task. A cost formula, however, may be worked out which will save the estimator's time and prevent loss. In one plant this cost formula is $(a+b+\frac{1}{2}b) 1+.259$. It cannot be used exactly as it stands here in every plant, however, as one has to work out the right figure to put in place of 1.259, and also to decide whether to add in one-half of b , or one-quarter, three-quarters or what not. Otherwise, the formula is widely applicable. The theory can be applied by any factory man or contractor who has to submit an estimate before he wins a job, and who wants to be sure beforehand whether he is going to make a profit or incur a loss, and where it will come in.

Roughly there are five costs in every concern:

(A) Material (the amount entering into goods sold)

(B) Labor (direct)

(C¹) Manufacturing Expense

(The total of these three first items constitutes the manufacturing cost).

(C²) Selling Expense

(C³) Administrative Expense

When one has a specific contract to figure costs on, it is not difficult to find what the material and labor that will be required will cost. The other three expenses have to be apportioned against each job on a percentage basis. Manufacturing expense is apportioned as a percentage on the direct labor that goes into the job; selling expense as a percentage on the complete manufacturing cost; and administrative expense as a percentage on the manufacturing cost plus the amount of selling expense allotted to the job.

On this basis it is simple, with the help of past costs covering a period, say, of a year, to work out the cost formula. The total of each of the five elements is figured for the period which is taken as the basis of the formula. To get the percentage of manufacturing expense that should be figured on particular jobs, divide the total manufacturing expense that is found in this

way for the period by the total wages. That is, using the symbols for these sums given above:

$$\frac{C^1}{B} = M$$

M, in this connection, is a percentage figure. Assume for the sake of illustration that we have a specific job to figure. Use the small letters *a* and *b* for the material and wages that are to go into this job. We have the following formula, which represents the manufacturing cost of the job:

$$a+b+Mb$$

The percentage to be added to each job for selling expense is arrived at by use of the following formula:

$$\frac{C^2}{A+B+C^1} = S$$

Fitting S into the formula we are working out, we have the following:

$$a+b+MB+S(a+b+Mb).$$

This is true because, as explained before, the selling expense is apportioned to each job as a percentage of the total manufacturing cost.

At the stage reached now the formula represents the manufacturing cost of the job, plus the percentage of selling expense it should bear. It is still necessary to find the correct percentage of administrative expense to add to each job. This figure is arrived at by working out the following formula:

$$\frac{C^3}{A+B+C^1+C^2} = T$$

This furnishes the final element in the cost, and when it is fitted into the formula, the latter reads as follows:

$$a+b+Mb+S(a+b+Mb)+T(a+b+Mb+S[a+b+Mb])$$

Reduced to its simplest terms, this formula reads as follows:

$$(a+b+Mb) (1+S+T+TS)$$

Now assume, for the sake of illustrating just how simple this formula is in actual use, that the calculation has shown that M is 50 per cent, S is 10 per cent and T is 5 per cent. Inserting these figures in place of their symbols, the formula reads:

$$(a+b+\frac{1}{2} b) 1.155$$

An example will show how the formula helps in actual use. A job is to be figured. We know that the material going into the job will cost \$10, and the direct labor will cost \$8. Substituting these figures in the formula, we get the following result:

$$(\$10+8+\frac{1}{2} \times 8) 1.155 = \$25.41$$

That is a fair estimated cost of the job. The amount of profit desired may be added, and the result will be the correct price to quote the customer.

Other formulas can be worked out along the same lines, even though the basis of distributing manufacturing, selling and administrative expense be different from the basis used. For instance, some concerns find material a more effective basis than labor on which to distribute manufacturing expense. Administrative expense, too, might be distributed on the basis of manufacturing cost. But these are details that do not affect the theory.

The formula should be corrected every year, on the basis of the new costs collected during the period. This enables one to keep his estimates well in hand, and to know before he undertakes a job how much profit he is going to get on it.

A BANKER'S TABLE.

The table below is used by a Missouri banker to show what the average expenditures of a family whose income is between \$900 and \$1,500 should be. The schedule is put in the front of family expense books,

which are advertised and distributed freely. A great increase in the bank's deposits has resulted as many families have been encouraged to save by having a comparative statement of expenditures brought to their attention. The table follows:

Food—30%—all necessary expenditures for the family table as well as meals taken at restaurants; also water tax and ice.

House—25%—rent; carfare to and from work; property tax; fire insurance; repairs on house.

Clothing—13%—clothing, all materials for and cost of making; cost of repairing, cleaning and pressing; millinery; shoes.

Housekeeping—12%—labor and materials for laundry; light and fuel; telephone; house furnishings and supplies for house.

Educational—6%—school books; tuition; club or lodge dues; church and charity contributions; gifts; magazines; books; newspapers; outings; amusements; medical or dental treatment.

Luxuries—4%—any items not necessities or educational, such as extra food, candy, livery hire.

Savings—10%.

BOOK V

BUSINESS DICTIONARY

All of the common terms used in business and commerce are defined elsewhere in these volumes and may be easily referred to by consulting the index. All necessary terms not so defined are here listed for consultation. A number of words defined here are more fully treated elsewhere, for which treatment the user is referred to the index.

A

A1. First class; without a superior.

abatement. In contracts, a creditor's reduction of claim.

"A" bond. One of the first of a series of bonds designated alphabetically.

absolute indorsement. An indorsement binding the indorser to pay when notified that the prior parties have failed to do so.

absorbed. Subscribed for;—applied to bonds, etc.

account. 1. The record of any business transaction.

2. On the stock exchange, the extent of speculative positions open.

accrued dividend. The increment accumulating at any time before a regular dividend payment.

acquittance. An acknowledgment of the payment of a debt.

actual assets. Money; property of certain value.

adjustment bond. A bond issued to secure money, as for improvements.

adjustment mortgage. 1. A mortgage usually covering improvements. 2. A second mortgage.

afloat. Designating grain on passage.

allocation. Apportionment; allotment; assignment.

- allotment.** 1. Share or portion. 2. In underwriting the amount assigned a member or subscriber.
- all-'round price.** Overhead price.
- arbitrage.** Purchase and sale of the same thing in different markets.
- arraha.** Earnest money. [Latin.]
- assessment.** A demand upon stockholders for a specified sum per share of stock.
- assets.** Total worth of property;—as of a person.
- aval.** Guaranty; indorsement.
- average book.** In banking, a book recording the average credit balances of depositors.

B

- backing.** Indorsement.
- balance sheet.** A tabular statement showing assets and liabilities, profit and loss.
- ballooning.** Inflating a stock value. [Colloquial.]
- bear.** A speculator believing in lower prices; one who sells stock short to buy back at a lower price.
- bearing the market.** Working to force prices down.
- bid and asked quotations.** Quotations furnished by stock specialists, the nominal prices of the day on the stock exchange.
- blanket mortgage.** A general mortgage.
- blind pool.** A money pool to be used at the manager's discretion.
- block.** A large number of shares.
- board of trade.** 1. An organization formed to promote mercantile or commercial interests. 2. An exchange or trading organization the members of which conduct large speculative operations.
- bond.** A secured certificate of obligation to pay money.
- bonded.** Secured by some guaranty.
- bonus.** A premium or gratuity.
- books close.** That time, prior to a dividend payment, at which ownership of securities may not be changed in the record;—opposed to *books open*.
- books open.** The opposite of *books close*.
- book value.** Stock value based on earnings.

- branch bank.** A bank under the control and supervision of a larger bank;—not permitted under the national bank act.
- bucket shop.** A place where bets are placed on regular exchange quotations.
- bucketing of stocks.** Sales by a broker—for his own account and risk—against customers' purchases, or purchases by the broker against customers' sales.
- budget.** An estimate of probable revenues and expenditures by the government in the ensuing year with affecting measures. [English.]
- bull.** A speculator believing in higher prices; one buying in expectation of a raise.
- bulling the market.** Working to make prices higher.
- buyer four, ten, twenty, etc.** Bought for delivery on any day demanded by the buyer within the number of days specified (4-10-20-etc.) on one day's notice to the seller.
- buying back.** Purchasing a stock previously sold without ownership.
- by-bidder.** A side bidder at an auction to raise prices.
- by-laws.** Rules, subordinate to a constitution or charter, adopted by an association or corporation for the conduct of its affairs.

C

- call.** A contract binding the issuer to deliver on demand to the holder agreed stock within a certain time at a certain price.
- called bond.** A bond issued with the privilege of redemption after a certain time, interest to cease on such call.
- call loan.** A loan payable on demand.
- capital.** Available wealth or money.
- Captain of Industry.** A leader in the creation and development of important industries in the United States.
- cash assets.** Assets in money or readily convertible into money.
- cats and dogs.** Worthless securities. [Colloquial.]
- charges forward.** Designating charges to be paid by the receiver of the property.

Chicago check. A form of check having the dollar mark to be followed by the amount in figures, at the end of the line for the payee's name.

c. i. f. Cost, insurance, and freight included.

circular letter of credit. See *traveler's letter of credit*.

circulation. 1. Money in use. 2. Notes issued by national banks.

classified bonds. Bonds disposed in two or more classes, as designating the payment of interest or maturity.

classified stock. Stock disposed in two or more classes, as first, second, and third preferred.

close corporation. A company the stock of which is held by a few persons and is not on the market.

closed for dividend. Not open pending a dividend payment;—said of stock.

closing prices. On the stock exchange, the prices at which the last sales are made.

coining rate or value. The valuation as compared with gold at which silver is coined as opposed to its actual bullion value.

collateral loan. A loan on paper secured by a pledged security.

collateral note. A promissory note secured by a pledge.

collection charge. A charge for collecting out-of-town paper.

commitment. The act of giving an order to buy or sell.

community of interest. Joint ownership or control for the maintenance of harmonious relations.

commutation, commuting. See *compounding*.

compensatory damages. An amount adjudged equivalent to a sustained loss.

composition. A partial payment of creditors accepted by them as a full payment.

compounding. The payment of several successive obligations by substituting a lump sum.

concessionaire. One who obtains a grant.

consignee. The one to whom goods are sent.

consignment. Goods shipped or forwarded by one person to another.

consol. A consolidated stock or bond, an abbreviation of consolidated annuities.

- consolidated bond.** One of an issue of bonds taking up and replacing two or more previous issues.
- consolidated mortgage.** A mortgage replacing two or more mortgages previously made.
- constant.** In finance, a fixed value.
- construction account.** The account showing the amount of building and equipment investment, as of a railroad.
- continued bond.** A bond which may be held after maturity, then bearing the same or a different rate of interest.
- contribution.** An indemnifying payment made to one of a number of parties jointly responsible for a debt by those not participating in the payment.
- controlling company.** One owning control though not operating another company.
- cooked.** Garbled or manipulated;—said of an account or report.
- corner.** The condition of the market with respect to a commodity which has been bought up with a view to monopoly.
- coupon.** The detachable form showing the amount of interest due at a certain date, being negotiable the same as a check.
- coupon bond.** An unregistered bond payable to bearer.
- crossed check.** A check bearing on its face, certain words making it payable only at a bank;—used only in England.
- cumulative stock.** Preferred stock bearing a dividend, which if not paid regularly, accumulates, and must be paid before a dividend on common stock.
- current assets.** Such assets as change from day to day.
- current liabilities.** Liabilities changeable daily.
- cutthroat mortgage.** A mortgage so drawn as to cut off the mortgagor's right of summons or notice and recourse,—not sustainable in equity.

D

- dating.** Extension of credit beyond the ostensible term by placing the date ahead.
- dead assets.** Unproductive assets.

- debenture.** A certificate of debt; unless secured, a promissory note.
- declaration of trust.** Acknowledgment by a person holding a title to property that the virtual ownership vests in another.
- deferred bond.** A bond the interest of which is put off for a certain period.
- demurrage.** A charge for holding cars or vessels beyond a specified time.
- differential rate.** In transportation, a lower rate to the same or competing points.
- direct liabilities.** Determined, undisputable obligations.
- discussion.** A proceeding in which a surety exhausts his principal's property before becoming liable himself.
- dividend.** A profit paid to a holder of a stock.
- dividend off.** Not carrying a declared dividend with the sale;—said of a stock.
- dividend on.** Including dividend due.
- divisional bond.** A bond under a mortgage on property in one railroad division.
- domestic exchange.** Drafts drawn at one place and payable at another place in the same country.
- domiciled.** Payable at (a certain place).
- double-name paper.** Paper bearing an indorsement.
- drawback.** A rebate.
- drawn bond.** One of a number of bonds determined for payment by lot.

E

- equipment bond.** One of a series of bonds given for money to equip a railroad with rolling stock.
- equity.** The difference between the value of encumbered property and the incumbrance standing against it.
- exchange.** 1. The payment of an obligation in one place by the transfer of credit from another place. 2. A draft. 3. A place where purchases and sales are made.
- ex-coupon.** Having the coupon for the current interest payment detached;—said of a bond.

- ex-dividend.** Not including dividend;—said of a stock sold on or after the day the transfer books of a corporation close.
- ex-drawing.** Not including any advantage accruing to the buyer if drawn for redemption. [English.]
- ex-interest.** Not including interest.
- ex-rights.** Carrying with sale no rights recently granted holders;—said of a stock.
- ex-ship.** Free of charges up to the time of discharge from the vessel.
- ex-store.** Subject to all charges after leaving storage.
- extended bond.** A bond upon which extension of time has been granted.
- extension bond.** A mortgage bond covering a railroad extension.

F

- fiat money.** Money by decree of the government.
- finance committee.** A board directing monetary affairs.
- financial statement.** A balance sheet.
- first mortgage.** A mortgage that must be satisfied before all others.
- fiscal year.** The twelve months considered a year in financial operations, that of the United States government ending on June 30.
- fixed capital.** Property in its final form and capable of continued use in production, as machinery.
- fixed charge.** A certain charge becoming due at stated intervals.
- fixed debt.** A debt of some permanence, as a debt represented by bonds.
- floating.** Marketing; selling;—said of bonds or stock.
- floating capital.** Property in a changing form, as that invested in articles being manufactured.
- floating debt.** Indebtedness not represented by securities.
- floating stock.** Stock not held permanently.
- forced loan.** A loan made to conform to the requirements in hand, as that of a bank which has paid an overdraft afterwards not covered.
- foreign exchange.** Drafts drawn in one country payable in another; the system so used.

founders' shares. Shares formerly issued to the promoters of a company.

free coinage. Coinage of money without charge or deposit of metal, extended in the United States only to gold.

free overside. Same as *ex-ship*.

freight. 1. Anything transported by a carrying company. 2. Charges for transportation of the heavier class of goods.

full-stock. Stock at the face value of \$100.

funded debt. Outstanding debts converted into bonds or annuities.

G

general mortgage. A blanket mortgage.

gold bond. A bond payable only in gold, principal and interest.

gold point. That period in the buying and selling of foreign exchange when it permits the importation or exportation of gold.

gold reserve. The fund in gold, \$150,000,000, set aside in the United States treasury for the redemption of greenbacks.

government depository. A national bank designated to receive government deposits.

gross earnings. Total earnings.

guaranteed bond. A bond issued by one company and having the principal and interest guaranteed by another.

guaranteed stock. A stock issued by one company and guaranteed by another.

H

half-stock. Stock the par value of which is \$50.

holding company. Same as *securities company*.

hypothecation. The pledging of any property, as securities, as collateral for loans.

I

In bond. Held under bond or in trust.

Indorsed bond. A bond bearing an indorsement not properly pertaining to it. According to New York stock exchange rules such a bond must be designated "indorsed," when offered for sale.

- Industrial stock.** Stock of a manufacturing company.
- Initialed check.** A check bearing the initials of a cashier or paying teller, signifying that the signature is correct.
- Interim dividend.** Division of profit before the final yearly dividend is declared.
- International stock.** A stock dealt in in foreign exchanges.
- Investment securities.** Stocks, bonds, or the like, considered as safe and desirable as regards dividends.
- Iron-clad note.** A collateral note.
- Irredeemable bond.** A bond which can not be paid off, now rarely issued.
- Irredeemable currency.** Fiat money.
- Issue.** 1. In law, the first delivery of a negotiable instrument in complete form to the holder. 2. In finance, the outstanding stock or bonds of a company.

J

- Joint bond.** A bond on which two or more parties are bound, as in certain railroad issues.
- Joint mortgage.** A mortgage issued jointly by two or more parties.
- Joint-stock company.** A company having its capital stock divided into shares of equal amount.
- Judgment note.** A promissory note bearing a warrant of attorney authorizing the entry of a judgment without process against the maker in case of non-payment.
- Junk.** Cats and dogs. [Colloquial.]

K

- klting.** The incurring of a fresh obligation to discharge an old one, as by exchanging checks with a confederate.
- knocked down.** Sold at the price bid, said of goods auctioned.

L

- land grant bond.** A bond issued under a land grant mortgage.
- land grant mortgage.** A mortgage on a grant of land, for the issuance of bonds.

leased line. A railroad held by another subject to a lease.

limited liability. Responsibility of stockholders for company debts only to the amount of stock held; indicated by the word "Limited" in the title.

liquid assets. Assets in cash or readily convertible into cash.

listed stocks. Stocks included in the list of those admitted to dealings at an exchange.

long and short haul clause. A clause in the interstate commerce law prohibiting a greater comparative charge for freight transportation for a short distance, than for a long distance under similar conditions.

M

marked check. A check bearing a private mark without which it is not valid.

merger. A trust.

mileage. 1. The number of miles in a railroad. 2. Distance traveled. 3. Transportation issued in continuous slips to be lifted by the conductor as used.

mortgage. A lien upon property to secure a debt, becoming void upon the payment of the obligation.

municipal bond. A bond issued by a borough, town or city having a self-governing charter of incorporation.

N

negotiable instrument. Any paper that may be transferred by assignment, indorsement or delivery.

net. 1. Clear of all expense, as earnings. 2. Not subject to any deduction, as a price.

net cash. Immediate payment; payment on delivery of the goods.

nominal assets. All assets, particularly those of doubtful value.

non-assented stock or bonds. Stock or bonds held by parties refusing to deposit their securities on a readjustment of the affairs of a corporation.

non-assessable stock. Stock not to be assessed.

non-cumulative stock. Stock on which no passed dividend has to be made good;—opposed to *cumulative stock*.

no protest. Not to be protested if not paid.

nude contract. A contract without a consideration.

O

obligatory bond. Any bond having the interest at a fixed rate payable at designated intervals.

operating company. The company carrying on a road, the ownership of which vests elsewhere.

option. The purchased privilege of either delivering a specified amount of something at a specified price within a specified time, or calling for and receiving such delivery.

optional bond. A bond that may be retired by the issuer at a designated earlier date.

overcapitalization. Capitalization for an amount not warranted by the profits.

overcertification. The certification of a check by an officer of a bank, the drawer not having sufficient funds to cover it.

overdraft. A check drawn on a bank not having sufficient funds to the credit of the drawer.

overhead price. A price covering cost and all charges.

overissue. Issue of stock beyond that authorized.

overlying mortgage. A mortgage subsequent in claim to another mortgage.

P

paid-up stock. Stock paid for in full.

paper profits. Probable profits from transactions not closed.

par. Face value.

parent company. A company from which other companies derive authority.

parity. A price (of a stock) equivalent or equal to the price of the same stock quoted on a different basis.

par list. A list issued by a bank to correspondents or customers, giving a list of cities and towns the checks of which will not be charged exchange.

- participating bond.** A bond sharing in a distribution of profits as well as a guaranteed interest.
- passing a dividend.** Failure to make a regular dividend.
- passive bond.** A non-interest bearing bond having some other benefit attached.
- plain bond.** A bond having no mortgage or collateral security and without a sinking fund provision.
- plant.** The permanent appliances necessary to conduct any business.
- pool.** Interests joined for mutual advantage, specifically, (a) a trust or combination to regulate prices; (b) a fund contributed by several persons for a specified use.
- postdated.** Bearing a future date.
- preferred stock.** Stock which must receive a dividend and participate in a distribution of assets before common stock.
- premium.** 1. The amount of excess over the par value.
2. The sum paid by a policy-holder for insurance.
- private company.** A close corporation. [English.]
- promoter's stock.** Stock issued one interested in the promotion of a company, for services rendered.
- proprietary company.** A controlling company.
- protest waived.** Without necessity of protest (to indorse).
- proxy.** A person authorized to represent another; also, the instrument granting such authority.
- put.** A contract by which one person, in consideration of money paid to another, acquires the privilege of selling or delivering to the latter within a certain time some designated article at a stipulated price.

Q

- quarter-stock.** Stock at the par value of \$25.
- quick assets.** Property quickly convertible into cash.
- quid.** One pound sterling. [English.]
- quotation.** Price. On the stock exchange quotations for stock are in eighths of one per cent, while quotations for grain, pork, lard, short ribs, and silver are in eighths of a cent. Cotton and coffee quotations are in hundredths of a cent.

R

- redeemable bond.** A bond payable at a specified future time.
- redemption drawing.** The determination by lot of those bonds to be redeemed and paid.
- registered bond.** A bond recorded in the owner's name.
- registered coupon bond.** A bond bearing coupons payable to bearer, but itself payable only to owner.
- registered stock.** Stock recorded in the company books and transferable only by surrender of the stock-certificate, not by indorsement. [English.]
- registrar.** The keeper of the records of transfers of securities, verifying the signatures of registered owners.
- rehypothecation.** The hypothecation by a broker of securities hypothecated to him. Such act is illegal without the consent of the owner of the collateral.
- released indorsed bond.** A bond bearing an acknowledgment of relinquishment of title, taken before a notary public.
- reorganization.** Compulsory financial reconstruction.
- resources.** The collective amount of cash and property equivalent to cash.
- restrictive indorsement.** An indorsement so worded as to qualify further negotiability.
- right.** 1. The privilege to subscribe (a certain amount) to an issue of a security. 2. In underwriting, an allotment or accepted subscription.

S

- scrip.** 1. A certificate for a fraction of a share of stock, usually exchangeable for shares when presented in sufficient quantities. 2. United States paper currency of less than \$1 denomination,—not now issued.
- seasoned securities.** Stocks or bonds having an established value.
- securities company.** A company owning the securities of other companies and depending for its income upon the income derived from such securities.
- seignorage.** The difference between the cost of the bullion in a coin and the value of the coin minted.

seller four, ten, twenty, etc. Sold for delivery on any day desired by the seller within the number of days specified (4-10-20-etc.) on one day's notice to the buyer.

seller's option. A put.

serial bonds. Bonds redeemable in specified installments.

single-name paper. Unindorsed paper.

sinking fund. A fund to which are added certain amounts of money at specified times to close off a debt.

sinking-fund bond. A bond to be paid by a sinking fund.

sinking-fund mortgage. A mortgage to be paid by a sinking fund.

slow assets. Property not to be quickly turned into cash.

sola. A foreign bill of exchange drawn singly.

special aid bond. A bond issued by a government or municipality to facilitate a beneficial enterprise.

special assessment bond. A municipal bond issued payable by a special tax levied upon property improved by the fund originating the bond.

stale check. A check not presented for a considerable time.

sub-company. A subsidiary company.

subsidiary company. A company the stock of which is owned or controlled by another company.

surplus. Profit remaining after deductions are made.

syndicate. A number of capitalists uniting to finance and carry out some plan or scheme.

T

tack. The direction in which a speculator's interest lies.

tax bond. A state bond receivable for taxes.

time loan. Money borrowed for a specified period.

ton-miles, ton-mileage. Number of miles total tonnage was hauled by a railroad.

train-miles, train-mileage. Number of miles made by a railroad train or trains.

transfer agent. An officer authorized to transfer a company's stock.

traveler's letter of credit. A draft issued payable in such amounts as desired by various domestic and foreign correspondents.

turn over. The total business transacted by a concern in a given period.

U-Z.

underlying mortgage. A prior mortgage.

unfunded debt. A floating debt.

utter. To issue, as forged paper.

via. A bill of foreign exchange, drawn in duplicate or triplicate.

voting trust. The placing of all or part of the stock of a company in a trust for voting purposes.

when issued. Deliverable when, and as if issued—said of a stock.

working capital. Money necessary for operating expenses.

X. Same as *ex*.

x-d. Ex-dividend.

yield. Percentage of return in dividends.

ABBREVIATIONS AND ARBITRARY SIGNS USED IN BUSINESS

A. or Am......America; American.

A1......First class.

Acct. or acct......Account.

Acct. Cur......Account Current.

Acct. Sales......Account of Sales.

Adv. or adv......Advertisement.

Agt......Agent.

A. M......Forenoon; Master of Arts.

Amt......Amount.

App......Appendix.

Asst......Assistant.

Atty......Attorney.

Av. or Ave......Avenue.

Bal......Balance.

B. B......Bill book.

bbl.....	Barrel.
bdl.....	Bundle.
Bk.....	Bank.
bkts.....	Baskets.
B/L.....	Bill of Lading.
Bld.....	Building.
Bot.....	Bought.
B/S.....	Bill of Sale.
bu.....	Bushel.
bx.....	Box.
c.....	Cent.
Cash.....	Cashier.
C. B.....	Cash book.
Chgs.....	Charges.
Ck.....	Check.
Co.....	Company; County.
C. O. D.....	Collect on Delivery.
Coll.....	Collection; collector.
Cr.....	Creditor; credit.
cwt.....	Hundredweight.
da.....	Day; days.
Dept.....	Department.
Dft.....	Draft.
Disc.....	Discount.
do.....	The same.
doz.....	Dozen.
Dr.....	Debtor; doctor.
Dray.....	Drayage.
E. & O. E.....	Errors and omissions excepted.
ea.....	Each.
e. g.....	For example.
Esq.....	Esquire.
etc. or &c.....	And so forth.
Ex.....	Express; example.
Exch.....	Exchange.
fig.....	Figure; figures.
F. O. B. or f. o. b.....	Free on board.
Fol.....	Folio.
Frt.....	Freight.
ft.....	Foot; feet.
gal.....	Gallon.
gr.....	Grain.

BUSINESS DICTIONARY.

gro.....	Gross.
hhd.....	Hogshead.
hund.....	Hundred.
i. B.....	Invoice book.
i. e.....	That is.
in.....	Inch; inches.
ins.....	Insurance.
inst.....	Instant; the present month.
int.....	Interest.
inv.....	Invoice; Inventory.
J.....	Journal.
Jr. or jr.....	Junior.
kg.....	Keg.
lb. or lb.....	Pound.
L. B.....	Letter Book.
L/C.....	Letter of credit.
Led.....	Ledger.
L. F.....	Ledger folio.
Ltd.....	Limited.
M.....	Thousand.
Mdse.....	Merchandise.
Mem.....	Memorandum.
Messrs.....	Gentlemen; Sirs.
Mfg.....	Manufacturing.
min.....	Minute.
Mme.....	Madam.
mo.....	Month.
M. O. D.....	Mail Order Department.
Mr.....	Mister.
Mrs.....	Mistress.
MS.....	Manuscript.
MSS.....	Manuscripts.
Mtg.....	Mortgage.
N. A.....	North America.
N. B.....	Take notice.
No. or no.....	Number.
N. P.....	Notary Public.
O. K.....	All correct.
Oz. or oz.....	Ounce.
p.....	Page.
Payt. or payt.....	Payment.
pc.....	Piece.

pcs.....	Pieces.
Pd.....	Paid.
per cent.....	By the hundred.
pk.....	Peck.
pkg.....	Package.
P. M.....	Postmaster; afternoon.
P. O.....	Post Office.
pp.....	Pages.
pr.....	Pair.
Pres. or Pt.....	President.
prox.....	Proximo; of the next month.
pt.....	Pint.
P. S.....	Postscript.
qr.....	Quire; quarter.
qt.....	Quart.
Recd.....	Received.
Reg.....	Registered.
Retd.....	Returned.
Rev.....	Reverend.
R. R.....	Railroad.
Ry.....	Railway.
S. B.....	Sales Book.
Sec.....	Secretary.
Shipt.....	Shipment.
sq. ft.....	Square feet.
Sr.....	Senior.
St.....	Street; saint.
Str.....	Steamer.
Sunds.....	Sundries.
Supt.....	Superintendent.
Tr.....	Transpose.
Treas.....	Treasurer.
ult.....	Ultimo; of the last month.
U. S. M.....	United States Mail.
via.....	By way of.
viz.....	Namely; to wit.
vol.....	Volume.
vs. or v.....	Against.
W/B.....	Way bill.
wk.....	Week.
wt.....	Weight.
Yd. or yd.....	Yard.

